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ORIGINAL LECTURES.

ANÆSTHETICS IN LABOR.

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GENTLEMEN,—Thus far in the course, while speaking of obstetric operations, we have had frequent occasion at least to allude to the use of anæsthetics in labor, and I think it will be proper now to discuss the subject more fully. I think it wise to do so not only because of the general importance of the subject, but because also it is little considered in lectures during an undergraduate course, and the only practical knowledge gained concerning it is that which the student is enabled to pick up incidentally during his attendance upon clinics. I am frequently asked my views regarding the use of anæsthetics in labor, and particularly are questions put to me as to the danger of fatal issue during the administration of chloroform.

The history of the introduction of anæsthetics is of comparatively little practical importance to us in this connection. It is sufficient to say that chloroform and ether began to be used about the same time,—ether being more particularly the agent at first employed in this country: this fact, I think, explaining in part why English writers, teachers, and practitioners have only slowly taken up the use of ether. Ether is an American idea, while chloroform was a British idea, and English surgeons have been, therefore, stanch adherents to the use of chloroform. I think we are entirely without prejudice in our feelings concerning the value of these two anæsthetics; but this cannot be said of the English, for they are conservative and believe in things British. So you will find, in reading an English text-book, that when an anæsthetic is mentioned it is apt to be chloroform, for chloroform is used extensively in surgical practice in that country. In this country, on the contrary,—certainly in the cities,—it is the exception to employ chloroform in surgery.

First of all come the questions as to whether or not we shall use any anæsthetic in labor; and, if we are to use one, under what circumstances. I believe in the use of anæsthetics in labor, for a number of reasons which I shall mention. An anæsthetic should be used almost invariably where an operation is to be performed, and it may be used with propriety in a great many natural labors, or labors in which no operation is performed. In the latter class of cases it is used to relieve pain, and also, oftentimes, to shorten labor.

Regarding the use of an anæsthetic when no operation is about to be performed, I would say that it should be used during the second stage, and not during the first. I would never use an anæsthetic during the first stage of labor, because the period of dilatation is generally a long one, and if you once begin the employment of an anæsthetic your patient will be unwilling that you discontinue its use. The only exception to this rule would be that of so-called forced labor, or labor hurried in the first stage, perhaps by Barnes's dilator or other means. Under these circumstances I might use an anæsthetic.

I should also prefer to avoid the use of an anæsthetic in the early part of the second stage, because it does modify to some degree uterine action. You will find that under an anæsthetic labor-pains occur a little less frequently and with a little less degree of force than without. Therefore I prefer to delay its use somewhat, waiting, if possible, until we get on into the second stage of labor. It may be necessary to employ an anæsthetic in order to enable the woman, who is suffering much pain, to remain quiet during the manipulations of the obstetrician in procedures which may be necessary for her welfare. I would wait for the suggestion of the patient before employing an anæsthetic to relieve pain. If it be not suggested, and I have no particular reason for using it, I should never urge its use. When, however, the patient is suffering severe pain, and will permit the administration of an anæsthetic, you will find that by complying with her wish you will save her nervous system a great amount of wear and tear. It is not necessary to produce full anæsthesia in order to lessen the patient's sufferings. It is only as the child is about to be born that I carry anæsthesia to the extent of rendering the mother unconscious. At this time it is important to guard against her making a sudden movement which

may interfere with my efforts to protect the perineum. If the patient be phlegmatic, one who has herself well under control and can avoid becoming excited and restless, I should not employ chloroform in normal labor. On the other hand, in women who are under great agitation and excitement in labor, we see pains which have been irregular, short, and inefficient, become steady and strong when an anæsthetic is used.

Regarding anæsthetics during obstetric operations, such as version, the use of the forceps, etc., I think they should always be employed. Their use is desirable because it saves the patient pain. It saves her undue excitement, which would attend any operation, and keeps her quiet at a time when it is necessary to exercise care not to injure any of the uterine structures, as in version, or any of the structures of other portions of the parturient tract, as in forceps-delivery. Besides, the operator is able to discharge his duties best when he knows that his patient is not suffering pain. When a physician knows that every movement which he makes during an operation causes his patient pain, he feels embarrassed by that knowledge, and may be induced to hurry at a time when haste is detrimental to the interests of his patient. I would, then, use an anæsthetic in almost all obstetric operations. I am free to admit, however, that in a few instances, where the head was in the sacral excavation, and the patient known, by experience in previous confinements, to have self-control and to repose entire confidence in me, I have delivered with the forceps without anæsthesia. But this experience does not repeat itself oftener than once or twice a year. In the operation of version I always use an anæsthetic, except in those rare cases of placenta prævia where every moment is of value and delay is dangerous. In cases of version it is particularly important that the uterine wall be not injured, as it might be, even to the degree of rupture, by one's knuckles coming in contact with the contracting walls if an anæsthetic be not used. In other operations, like abdominal section, an anæsthetic is of course necessary, and I do not need to discuss the question in connection with such operations, which are properly surgical as well as obstetrical, and in which we would naturally expect to employ an anæsthetic.

I know you will meet with physicians, and good physicians, too, who advise against anæsthetics in labor, claiming that they are unnecessary and exert a deleterious effect. It may be of interest to mention some of the objections to their use which have been brought forward, for you will be confronted with them from time to time, and it will be well to have given them some consideration.

The early objection that their use is immoral and unchristian may be mentioned only as a curiosity. When anæsthetics were first introduced it was preached from the pulpit, and held by some physicians, that their use in labor was improper because it was contrary to Bible-teaching that woman should be free from pain during labor. Another objection which has been raised is that the mother, being rendered unconscious at the time of the birth of her child, is improperly deprived of experiencing what has been considered the greatest joy of her life,—namely, the consciousness of another human being born into the world through her instrumentality. Such a sentimental objection cannot now be offered in seriousness. Another objection which has been offered is that, the patient under an anæsthetic being without sensation, an operation may be done in a bungling manner without her being able to give warning of the pain and injury which would be produced. It is true that if you were, for instance, introducing the forceps not inside but outside of the cervix, the patient, if she were not anæsthetized, would tell you that she was suffering pain; but in advising the use of anæsthetics in these cases the presumption of course is that the operator has average skill, and in that case there need be no danger of his doing violence. This objection was entitled to more respect when anæsthetics were first introduced, because then less was known about their influence than is known at present. Indeed, experience has taught us that accidents are less likely to occur in operations during labor when anæsthetics are used than when they are not employed.

Again, it has been claimed that puerperal fever, inflammations, and post-partum hemorrhage are more liable to occur when anæsthetics have been used; but I do not believe that the liability to the first of these accidents can be increased unless violence be used during the operation. I can conceive that post-

partum hemorrhage would be a little more apt to occur after their use, and the increased liability to this accident should be recognized and guarded against by proper precautions. When these precautions are taken, and the patient well cared for, it will be avoided. I also believe that subinvolution and chronic uterine disease may possibly be a little more likely to occur after the use of an anæsthetic, and for the same reason,—namely, that the uterus does not contract quite as well; and if the attendant be careless and do not bestow proper attention, the cavity may contain a clot for a number of days after labor, and the organ remain soft and flabby, and fail to undergo proper involution when the patient gets up and walks about. But certainly we are not enough more liable to have puerperal disorders after the use of anæsthetics than when they are not employed to warrant us in withholding them, particularly as a little extra care will avert them. We are told that parturition is a physiological process, and that we ought not to interfere with a physiological process. So is urination a physiological process, but when a man cannot urinate we do not hesitate to employ the catheter; nor should we hesitate to give a woman in labor an anæsthetic when the circumstances call for it.

Regarding the kind of anæsthetic to be used, we have to choose between ether and chloroform. It is not worth while to take up the question of the value of other anæsthetics in labor. Nitrous oxide is of no value here, yet I may stop to say a few words concerning cocaine, which has been suggested as an agent for diminishing pain in labor. I have had it employed somewhat at the Nursery and Child's Hospital by the resident physicians, and they have failed to observe that it perceptibly lessened the pain of labor. They painted the cocaine liberally over the cervix, and injected it into the cervical tissues. Such has been my experience with the drug, and, theoretically, I cannot conceive how it can possibly do any good. You will remember that dilatation of the cervix is under the control of nerve-filaments coming from the sympathetic system. These filaments communicate with certain cerebro-spinal nerves, particularly those of the ilio-inguinal and the ilio-hypogastric plexuses. With each contraction of the uterus there is, as it were, telegraphically transmitted a power which produces pain in these nerves. Now, the pain is not in the cervix at all. You may do what you like with the cervix,—scratch it, cut it with a knife,—and you excite scarcely any pain at all, unless the irritation is of a character to cause a disturbance of the connecting cerebro-spinal nerves. If you wished to produce any effect with cocaine during labor, you would have to apply it to the ilio-inguinal and ilio-hypogastric nerves. It would seem that those who have advocated the use of cocaine to control the pain of labor have done so prematurely, and without sufficient consideration as to the probable way in which it must act.

Coming back to the question of the relative value of ether and chloroform, I may first say that I usually employ chloroform, and expect to continue to do so for certain reasons which I will now mention. I may also say that in surgical practice I would never use chloroform, and I should have no sympathy with a physician who, being in the habit of using chloroform in general surgery, should lose a patient from this anæsthetic.

In obstetric practice, however, I regard chloroform as the proper anæsthetic to be used; but it is important to remember that its use is attended with a certain degree of danger. Women have died during labor from the effects of chloroform; but in almost all such cases it has been carelessly administered.

I know of no remedy, regarded of great value in medicine, which is not capable of doing harm if used improperly. We meet with patients who have peculiar susceptibilities or idiosyncrasies, and, if a remedy is administered to them without proper precautions, some accident may arise. There have been cases of death from opium where patients were peculiarly susceptible to its influence, but certainly we would not be willing to give up entirely the use of opium for this reason.

There is a difference between the condition of the patient who is about to undergo a surgical operation demanding an anæsthetic and that of a woman in labor to whom it is proposed to administer chloroform. In obstetric practice your patient has been suffering from severe pain, which has probably continued for a considerable length of time; and, when the use of an anæsthetic is suggested, your patient, instead of being rendered apprehensive, is

eager to have it used. Where severe pain has existed for some time, the nervous system becomes unusually tolerant of anodynes. This is illustrated in peritonitis, in which condition a person is able to bear enormous doses of opium, such doses as would cause death in a state of health. Now, in surgical practice, where we have previously existing a moderate degree of pain or no pain, the patient looks upon the operation with apprehension, he comes to the operating-table blanched, his nervous system is in a state of depression rather than of excitement, and it is less tolerant of the influence of the anæsthetic.

Then there is another important difference regarding the degree of anæsthesia required in general surgery and in obstetric practice. In the former it is necessary to carry the anæsthesia to the third stage, or the stage of complete muscular relaxation and unconsciousness, while in the latter it should be carried only to the second stage, in which the patient is unconscious of what is being done, but whose muscular system is not entirely paralyzed and the uterus still continues its contractions. As I have said, in surgery the patient must always, except in very short operations, be anæsthetized to a profound degree, while in obstetric practice anæsthesia should never be carried beyond the second degree, and when your patient is not kept within this limit you will be exposing her to an unnecessary and dangerous risk. Almost invariably in cases in which an accident has attended the use of chloroform in labor it has been due to too profound anæsthesia. I have never met with a case of death from chloroform, but on one occasion was summoned to a case in which it was thought that death had taken place from the anæsthetic. It was clearly a case in which anæsthesia had been carried to the last stage, and the patient had been snoring deeply for some time, the tongue having dropped back into the pharynx, and all the muscles being completely paralyzed. Letting up the chloroform, the patient could be rallied, fortunately, the uterus again began to contract, and the woman gave birth to her child.

Let us consider some of the advantages to be derived from the use of chloroform as against ether. First, the change from a condition of consciousness to one of unconsciousness is very quick, and during an operation you can, if it be desirable, let up the anæsthetic and consciousness will return; and when it is desired that anæsthesia should again exist, a few moments' reapplication of the agent will bring about unconsciousness. With ether, as you know, the patient must undergo a stage of excitement, becomes incoherent, and talks and thrashes about before coming under the influence of the anæsthetic, and, when once anæsthetized, you cannot permit her to return to consciousness until operative procedure is completed.

A very serious objection to the use of ether in obstetric practice is that it gives off an inflammable vapor, and inasmuch as it is usually employed at night and in a small room, there is danger of explosion. With chloroform there are no such vapors to explode.

As just stated, with ether you cannot vary the grade of anæsthesia as you can do with chloroform, and it requires a much longer time to bring the patient under the influence of the agent. With chloroform very little time is lost in bringing about unconsciousness. From five to ten minutes is required, according to the susceptibility of the patient. Sometimes anæsthesia is produced in even a shorter time than five minutes.

Permit me again to say that there are some well-authenticated cases of death from chloroform during labor. Dr. Turnbull, of Philadelphia, some years ago collected two or three cases, and perhaps more have been added to his list. It is important to know this and bear it in mind, so that you will be led to guard against the danger. If you go out with the feeling that no fatal result ever attended the use of chloroform in obstetric practice, you will be liable sooner or later to be painfully undeceived. You should watch the pulse constantly during the administration of chloroform, as it is the best guide regarding approaching danger; and yet it is not an infallible guide. The rule of greatest value is that which I have already mentioned,—namely, anæsthesia beyond the second degree should be avoided.

Chloroform seldom produces nausea, while ether almost invariably produces it. The administration of ether in labor means a very sick woman twenty-four hours after delivery. The odor of the drug remains in the patient's hair and clothing sometimes for two or three days, and the smell is to the patient a crying

grievance during that time. The odor of chloroform is not very disagreeable, and it remains for only a comparatively short time.

There are certain safeguards against the dangers of chloroform which are worthy of mention. One is the addition to the chloroform of nitrite of amyl. I think it has been positively demonstrated that nitrite of amyl is an antidote to chloroform-poisoning, and it has been suggested that to every ounce of chloroform employed for anæsthetic purposes there be added ten drops of the nitrite of amyl. We have not yet the statistics which would show the positive advantage of this mixture, but I believe it would be proper to give it a trial.

Should chloroform be diluted? It ought to be diluted with *atmospheric air*, but with nothing else. Mixtures of chloroform and ether and of chloroform and alcohol have not given results which make us feel that they are safer than chloroform alone. Chloroform itself is as safe as a mixture of chloroform and ether.

Speaking of the dilution of chloroform with atmospheric air brings us to the subject of the manner of administration. Such a cone as that which is employed in ether-inhalation should never be used in giving chloroform. The chloroform should be put upon a handkerchief laid out straight, and this held by a competent attendant from an inch to an inch and a half away from the nose. It should never be allowed to cover the mouth and nostrils. I always apply it myself until the patient has been rendered unconscious. A method which is sometimes practised, and which is a very good one, is to put a crumpled handkerchief into the bottom of a whiskey glass or small-sized tumbler, and pour the chloroform upon it. The rim of the glass being rigid, it is impossible for it to fit over the nose and mouth so as to exclude all air from the mouth and nostrils. Remember, in whatever way you apply the chloroform to the nostrils, you should always remove it when it is not required, for when it is necessary anæsthesia can be renewed with facility. Never carry it to the point of causing the patient to snore, and if this stage should be reached allow the admission of a greater amount of air.

A few words regarding chloral may be spoken here. This agent can never take the place of chloroform in obstetrics, but it has a sphere of usefulness of its own. I have told you that chloroform should not be used during the first stage of labor, but chloral may be employed with propriety and benefit at this time. Chloral, however, is without value, or is of doubtful value, during the second stage, for it will not overcome the pain; and should you use it you would probably find it necessary to substitute chloroform later, and the two drugs make a dangerous combination. I should not feel that it was as safe to use chloroform upon a patient who was already pretty well under the influence of chloral as upon a patient who had not received the latter drug. The latter drug, when used to modify the pain of the first stage of labor, may be administered by giving fifteen grains every half-hour until three or four doses have been taken. Under the influence of chloral, the moment a pain is over the patient will fall asleep, and, while she will be aroused by the next pain, she will not seem to appreciate it so fully as when no narcotic is given. The objection to chloral is that you have to wait for its influence to wear off, and it may thus interfere with the administration of chloroform in the second stage of labor; but where there is a rigid cervix, or the patient is nervous and excitable, you will find that chloral will be of service during the first stage of labor.

There is another objection to chloral which I have not seen mentioned in books, which is that after forty-five or sixty grains have been administered, the patient will be liable to manifest a mild delirium, talking wildly, which excites apprehension on the part of her friends. Inasmuch as you do not expect ordinarily to remain with her during the first stage of labor, you may not be at hand to quiet their fears. To guard against such apprehension it will be well for you to state before giving the drug that it will be likely to have this effect, and thus save the attendants unnecessary alarm.

In giving an anæsthetic in labor, bring the patient under its influence before you make any preparations for the operation, and before changing her position in the bed. Thus you will save her any apprehension she might have if she saw extensive preparations being made for an operation.

Again, it matters not what anæsthetic you may use, never administer it until

you have obtained the consent of some one besides the patient herself,—the nearest relative or friend who may be by at the time. The woman who is suffering the pains of labor would not be considered a competent judge regarding the propriety of using chloroform, and you might be censured if no other permission than hers was obtained. You will not find difficulty in obtaining the consent of her friends where it is necessary to employ an anæsthetic.

ORIGINAL COMMUNICATIONS.

REPORT ON THE PROGRESS OF OTOLOGY.

BY CHARLES H. BURNETT, M.D.,
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ON THE NECESSITY OF PROVIDING FOR THE BETTER EDUCATION OF CHILDREN WITH DEFECTIVE HEARING, IN THE PUBLIC SCHOOLS.

(Continued from the Report in No. 450, February 21, 1885, this Journal.)

DR. SAMUEL SEXTON (*New York Medical Record*, December 20, 1884) endeavors to show that there is a considerable number of pupils in Deaf and Dumb Institutions who have been treated as though totally deaf, but who are, in fact, possessed of enough hearing to be available in their education. He states that in the Minnesota Institution "from fifteen to twenty-five per cent. of all pupils received can be taught by the aural method, and that after being instructed for a time many could hear well enough, at the distance of ten or fifteen feet, to converse when elevated voice was used."

We are then informed that confusion and consequent injustice to deaf pupils (not mutes) arise from neglect to classify properly, since all deaf pupils are forced either into the company and classes of totally deaf children or into classes of those with good hearing. Hence some very deaf children are in hearing-schools, while other deaf children (not mutes) are being taught in Deaf and Dumb Institutions, and are taught as deaf-mutes.

The want of proper classification of pupils in Deaf and Dumb Institutions has led to waste of time and money in endeavoring to teach the congenitally deaf, who are inapt, by the oral method, or to speak. The want of success, being misunderstood, has thrown discredit upon the system, and, as it is expensive as compared with instruction by dactylology, the sign-language has been adhered to. It is estimated that ten per cent. of congenital mutes cannot learn to talk unless more attention be given to their instruction in this matter than is practicable in any public school. The mediocrity is further increased by the mental inertness of mutes, who are admitted when too old to adapt themselves successfully to study or retained too long after reaching adolescence.

The duty of the State in respect to the education of the deaf is next considered.

By many it has been held that the public-school system has for its principal object the prevention of illiteracy among the poor, and, if this view be correct, it can scarcely be regarded as consistent, on the part of the advocates of educating the average child, for them to oppose a scheme for the promotion of the interests of a needy but uninfluential class, while fostering expensive institutions for the free education of those who are better off, going so far, even, as to expend large sums of money in giving special instruction in German, French, music, etc.

The expense of educating the deaf in day-schools as compared with their education in institutions is then considered.

It is claimed by Dr. Sexton that the outlay by the State would be lessened probably so far as deaf-mutes are concerned, while, on the other hand, it would be slightly increased for instruction of the very deaf and partially deaf. There need be no expense for new buildings, the structures at present in use for schools being sufficient. At present it costs in some States two hundred and fifty dollars a head to instruct the pupils in the Deaf and Dumb Institutions. If classes of ten are formed in the ordinary public schools for the very deaf, and a teacher for them secured at eight hundred dollars per annum, one hundred and seventy dollars a pupil would be saved.

Teachers are numerous, as demands are increasing for the better instruction of the deaf. Examinations should be made in the public schools, with a view of determining the hearing-power of pupils, as it is important to begin the training of deaf children early.

DEAF-MUTES AND THE PUBLIC SCHOOLS.

Mr. Joseph C. Gordon, professor in the National College for the Deaf, in Wash-

ington (*American Annals of the Deaf and Dumb*, April, 1885), has recently written a very interesting paper on the above topic, and it seems fitting to consider some of his conclusions at this point. He says, "Disappointment and failure have so uniformly followed the attempted extension and adaptation of the common-school system to the needs of deaf children that in Europe all systematic and organized efforts in this direction have been abandoned, and, in general, the education of the deaf has been confided to small groups of associated and trained specialists, forming the nuclei of the hundreds of more or less thoroughly organized and equipped *institutions* which have come into being without preconcert, unsought and unheralded."

Then follow eleven conclusions, only some of which demand attention here,—for example, the fourth. "That theoretical advantages of an environment of hearing persons have never been realized in practice. Children deaf from infancy have so little command of language that they can associate with other children only upon very unequal terms. . . . The greatest benefit realized has been from the limited association encouraged by certain favorably-situated institutions."

The tenth conclusion is worthy of attention,—viz., that day-schools or *externats*, whether special schools beside public schools or entirely separate from them, are not so efficient as the better class of thoroughly organized institutions, many of which have grown out of day-schools.

The eleventh conclusion is "that special institutions remain a necessity for the great mass of deaf children, and they continue to offer superior results, with the greatest economy of time, money, and men; and this is true, regardless of methods, systems, or devices of instruction."

STRUCTURE OF AURAL POLYPI.

Dr. J. B. Weydner, of Munich (*Archives of Otology*, vol. xiv. pp. 49–78, March, 1885), has communicated some very interesting researches into the structure of aural polypi. He justly remarks, at the outset of his article, that the "study of aural growths is of great assistance to us in our investigations into the nature and origin of tumors in general, because in the case of aural polypi we have the most favorable opportunities of examining them in all stages of their growth." These examinations have led the writer to the conclusion that the great majority of aural polypi spring from the soil afforded by a suppurative inflammation of the middle ear in the shape of small round granulations, which possess all of the histological peculiarities of the common type of traumatic granulations, or granulations of a wound. Sometimes, however, they contain large quantities of epithelium. The older the polypus the greater the quantity of connective tissue: yet in the oldest polypi clumps and clusters of nerve-cells may be found. Even when the middle ear is free from suppuration, it can often be demonstrated that the presence of some equally efficient cause, such as a foreign body pressing on the walls of the auditory meatus, or a plug of cerumen of long duration which has been pushed in upon the membrana tympani by the patient himself, has excited the formation of the polypus. Hence Dr. Weydner feels justified in asserting "that almost all aural polypi are originally nothing but granulation-tumors, whose fate it is to be ultimately transformed into connective tissue."

The cause of the polypi was otitis media purulenta acuta in eight cases. Five of these grew from the membrana tympani, two from the meatus, and one from Wilde's incision. None of them originated in the tympanic cavity.

In sixty-one cases the cause of the polypi was chronic purulent otitis media, in ten of which the polypus was located upon Shrapnell's membrane. Of the remaining fifty-one polypi, twenty-five sprang from the tympanic cavity, thirteen from the membrana tympani, and thirteen from the external meatus. Besides these there were four other cases in which polypi in the meatus arose independent of any suppuration, and chiefly, in the opinion of Dr. Weydner, from irritation caused by foreign bodies or plugs of cerumen.

Most of the patients were from twenty to thirty years of age. Ten were less than ten years of age, sixteen between ten and twenty, twenty-one between twenty and thirty, ten between thirty and forty, twelve between forty and sixty, and age unknown in four. Forty-four of the seventy-three patients were males, twenty-seven were females.

Histologically, thirty-three of the polypi were granulation-tumors, five were essentially vascular tumors, and four were epithelial tumors. Among the latter was a

small cholesteatoma, a wart from the tragus, a wart-like growth from the cartilaginous meatus, and, finally, an adenoma. This last tumor was found in a case of chronic otorrhœa, and manifested in a circumscribed space a number of enormously proliferated sebaceous glands.

In forty-six out of seventy-three polypi a tendency to degeneration was marked. In three instances the handle of the malleus was partially or wholly enclosed.

PHYSIOLOGY OF THE SEMICIRCULAR CANALS.

Dr. Benno Baginsky, of Berlin, has again contributed an article on this interesting subject (*Archiv f. Anatomie u. Physiologie*). There are two views held by physiologists concerning the cause of the phenomena induced by experimentation upon the semicircular canals,—viz., first, that they are due to an irritation so great as to produce a paralysis of the vestibular branches of the acoustic nerve, and, secondly, that they are induced simply by an irritation of the branches of this nerve. Baginsky's experiments, conducted with careful attention to and regard for the anatomical relations between this part of the ear and the brain, force him to reject both of the views stated. He maintains that the cause of these phenomena must be sought in the connection between the labyrinth and the subdural cavity, by means of the aqueducts of the cochlea and vestibule, and also in the proximity to the cerebellum. These relations of the parts render easy a lesion of the brain whenever the labyrinth is experimentally invaded, and these cerebral lesions are competent to produce all the phenomena which are known to ensue. Dr. Baginsky feels that he is further corroborated in his views and conclusions by the fact that isolated injuries of the cerebellar tissues near the ear are followed by exactly the same kind of manifestations, and also because late anatomical investigations have shown that the old view of the division of the acusticus into a cochlear and a vestibular branch is incorrect. He therefore thinks the discussion of the subject is narrowed to the question whether the phenomena occurring after section of the semicircular canals are caused by a labyrinth-lesion or by injury to the brain, and especially to the question, What is the nature of the labyrintho-cerebral lesion?

He maintains that it is not a paralysis of the vestibular nerve-branches which causes the vertigo, because there is an absence of all vertiginous symptoms when complete destruction of the labyrinth is effected, and also because complete degeneration of the labyrinth, which can be brought about experimentally on animals, is unaccompanied by any such manifestations of vertigo. In such cases, though complete paralysis of the acoustic nerve must of course be induced, no disturbance in equilibrium is observed.

But what has *mere irritation* of the acoustic branches in the vestibule to do with these phenomena? This, too, cannot explain the vertiginous symptoms, since in the experiments by injection into the labyrinth upon rabbits, notwithstanding intense inflammation of the labyrinth, the cochlea, and the vestibule, as observed post mortem, the vertiginous symptoms observed during the pressure by injections did not persist after the cessation of such pressure, notwithstanding the continuous irritation of the presence of a ten- to fifteen-per-cent. solution of chloride of sodium in the labyrinth.

Baginsky is further strengthened in his opinion by the fact that, whenever the fluids injected into the tympanic cavity produced symptoms of vertigo by pressure, it was found that the injected fluid had found its way into the jugular fossa through the aquæductus cochleæ, and also that many of the animals experimented upon and then allowed to live subsequently died with symptoms of meningitis,—a proof, it is thought, that by the experiment a lesion of the brain must have been produced.

It has been admitted that the symptoms in question could be evoked by irritation of the brain,—*i.e.*, of the cerebellum; but it has also been claimed that the vertiginous symptoms could be produced by injury of the labyrinth alone. Especially, of Högyes (*Pflüger's Archiv*, Bd. xxvi.) essayed to prove this by a new method of investigation. He concluded that the vertiginous phenomena evoked in Baginsky's experiments by pressure in the tympanic cavity, as well as the nystagmus, were due to exhaustion or a gradual paralysis of the membranous labyrinth. He further endeavored to show that there exists a certain relation between the mechanism of the associated bilateral ocular movements and both vestibular portions of the acoustic nerves. In his experiments, Högyes opened the fossa mastoidea (brain-cavity) in the living rabbit; the portion of the brain lying

immediately beneath the opening thus made he pushed carefully farther into the cranial cavity, and from this point bored into the labyrinth and applied various irritants, in consequence of which, in his opinion, by irritating certain parts of the labyrinth, specific and characteristic motions of the eyes, with simultaneous rotatory movements of the head and vertigo, ensued. After destruction of the membranous parts of the labyrinth, subsequent to these experiments, renewed irritation of the wall-surface in the vestibule was not efficient to produce nystagmus and turnings of the head. Finally, after destruction of the membranous labyrinth, when injections were made through the tympanic cavity, according to Baginsky's method, no vertiginous symptoms ensued. To this Dr. Baginsky objects that the Högyes method of experimentation is very fallacious, because, instead of the brain being left intact, and every remote possibility of such lesion being excluded, the cranial cavity has been deliberately opened at a point extremely near the cerebellum. Furthermore, Högyes pushed the portion of brain exposed beneath the point of incision farther into the cerebral cavity, although there was no room for it in the cranial capsule, and it is claimed that such pushing cannot be done without further squeezing and tearing it and injuring neighboring parts. Dr. Baginsky, therefore, endeavored to repeat Högyes's experiments. He states that if the fossa mastoidea in the living rabbit be broken open, the convolution of the brain lying beneath this spot of the cranium is exposed, and that insertion of this part of the brain farther into the cranial cavity is impossible; and also the most careful and skilful operator is not always able to open the vestibule, as very often the cerebral or tympanic cavity is opened by mistake instead. The spot operated upon is so small and so difficult to get one's bearings in as to render it doubtful whether Högyes really is able (as he claims to be) to expose and irritate, at will, the utriculus and the horizontal and vertical ampullæ in the living rabbit. Removal of the portion of brain in the fossa mastoidea above the tegmen tympani is not usually followed by any phenomena. Sometimes, however, in some of the experiments, bilateral nystagmus was manifested at the moment of ablation of the aforesaid portion of the encephalon, but it disappeared quickly. The same phenomenon is sometimes reproducible by pressure on the pedicle of the detached cerebral convolution aforesaid. If the animal, after such an operation, is permitted to get from the table, it runs about with normal actions and movements. Not so if the labyrinth has been opened. Then there ensues a bilateral and intense nystagmus, preceded usually by fixation of the eyes and subsequent convulsive rotations. With the nystagmus, in almost all the cases, there is perceived the Magendie ocular position, —viz., the eye on the side operated upon looks upward and outward, while the eye of the uninjured side looks downward and inward.

This position of the eyes is not constant, however, since sometimes with a nystagmus the axis of the eyes is normal, and sometimes the eye on the uninjured side points upward and outward. The other appearances of the eyes are extremely various. Very often the severe nystagmus disappears gradually, and the eyes return to their normal position and condition. When the animals thus operated on are placed upon the floor the nystagmus usually begins again: also there appear marked oscillations of the head, revolutions about the long axis, and the so-called "watch-hand" rotations of the body, usually towards the side operated on. Often there are revolutions backward. These involuntary motions may cease for a time, and the animals lie upon the ground. Gradually the animals rise, and, if urged to walk, generally fall towards the operated side. A post-mortem examination immediately after death reveals, in most of the cases, macroscopic changes in the cerebellum and vicinity. Hemorrhages are found on its surface, under the dura and pia, and often in the substance of the cerebellum. They may also be found in the peduncles of the brain and upon the vermiform process. In some of the experiments, in which during life the above-named phenomena appeared, macroscopic changes upon the brain-surface were not observed. In all cases, however, in which the phenomena appeared the labyrinth had been broken into before death by the experimentation, and after death was found filled with blood. Besides these successful experiments upon the labyrinth, there were some instances in which, at the post-mortem examination, the labyrinth was found not

to have been opened, but in which, nevertheless, all of the *aforesaid disturbances were exhibited.* In such cases it was found that the gimlet had entered beside the labyrinth, and penetrated the tympanic cavity, and in these cases, at the post-mortem examination, deep lesions and hemorrhages were discovered in the cerebellum. The conclusions drawn from these experiments are that in some cases ablation of the small portion of the brain exposed by the incision of the mastoid fossa in the rabbit produces nystagmus, usually attended with the Magendie ocular movements already described, swingings of the head, axial and so-called watch-hand movements, and backward revolutions of the body. These disturbances did not always correspond to the wounded side, but appeared sometimes in a reversed order. But all of these results by Baginsky are diametrically opposed to the asserted results of Högyes.

The latter maintains that mere breaking into the labyrinth produces *none* of the peculiar alterations in equilibrium.

The question between these two observers still is, Are the phenomena due to lesions of the labyrinth or of the brain? Baginsky holds that a close scrutiny of his experiments indicates a brain-lesion, which can be and has been shown post mortem, but how it comes about must yet be proven. It is held by Baginsky that the Högyes methods of experiment—viz., breaking open the skull (mastoid fossa), removal of the subjacent cerebral lobe, and breaking into the labyrinth—are all sufficient causes for cerebral hemorrhages and compressions, as found post mortem, and which would have been found by Högyes had he searched for them.

Baginsky then abandons the rabbit as unsuitable for these experiments, because the mechanical opening of the labyrinth without wounding the brain is impossible in this animal. He therefore chooses dogs, in which, after opening the bulla ossea (behind the ear and in the neck), the labyrinth is easily reached without wounding the brain. Some experiments of this kind were performed without narcotizing the animals, in order to escape the imputation that the phenomena attributed to irritation of the acoustic branches in the vestibule were really due to narcosis rather than to the operations of the experimenter. Therefore the animals experimented upon were kept only slightly etherized until the bulla ossea was opened. The anæsthetic effects were then allowed to pass off and the animal to recover perfect consciousness. Then when the animal had become active and lively the labyrinth was opened by boring with a gimlet, and the animal placed upon the ground, in order closely to observe any disturbance which might arise in the function of equilibrium. In some cases the animals thus operated upon showed no abnormal symptoms. They ran about, showing no disturbances in the muscles of the eyes nor in their own movements, and yet when these animals were killed, as they were a short time after these experiments, the labyrinth was found to have been opened and to have become filled with blood. On the other hand, in the majority of cases operated on the following symptoms were observed. Immediately upon irruption of the labyrinth an excessive ambilateral nystagmus was observed, the eyes rolling unceasingly about, and there was also at the same time a narrowing of the pupil on the incised side, and in some cases an insensibility of the cornea, and also at times loss of ability to close the upper eyelid. When placed upon the ground or the floor, these same animals fell upon the incised side, and could with difficulty rise. At every endeavor so to do, the most violent vertigo ensued. The involuntary movements consisted in revolutions about the long axis in some cases, and in others in the so-called watch-hand revolutions of the trunk. These usually terminated by falling and lying upon the ground. Each new endeavor to rise and move forward was followed by the renewal of the vertiginous symptoms. Sometimes tough saliva and mucus came from the mouth and nose. Gradually the severe symptoms abated, and in one and a half to two hours after the operation the dogs were able with difficulty to maintain their equilibrium by walking with their legs apart and with occasional falls to the right or left.

Some of the dogs were killed immediately after the operation, but the post-mortem examination revealed no demonstrable changes in the brain. Others were allowed to live: of these some died of the results of the operation a few days later, and at the post-mortem examination profound œdema of the brain and of the ventricles, with hyperæmia of the ventri-

cles, was found. The majority of these animals lived, and in these observation revealed that nearly all the phenomena gradually ceased to appear. First, the nystagmus in the course of twenty-four or thirty-six hours; then the falling tendency, which latter could be re-excited, at most to a very slight extent, however, by short turnings and twistings of the animals. The anæsthesia of the cornea also disappeared. The pose of the head, in some of the animals, did not become normal, as the animals held the head so that the eye on the incised side looked downward and the eye of the untouched side looked upward. Upon killing these animals subsequently, no cerebral lesion could be found; but the labyrinths in such animals, killed somewhat sooner, were found in the highest degree of inflammation. In others, which were killed somewhat later, cicatricial tissue was found in the labyrinth.

A review of the phenomena resulting from operations on the labyrinth of dogs, as in the case of rabbits, shows the greatest variability and interchange of symptoms following the same irritation, or one at least intended to be of the same nature. In one case irruption of the labyrinth produces no disturbance; in another there are produced excessive involuntary symptoms in the management of the eyes and of the muscles of the body, the latter so variable that in the same animal turnings, revolutions about the long axis, and revolutions backwards closely follow one another. In some of these cases there was narrowing of the pupil, and in others insensibility of the cornea.

Dr. Baginsky then asks the question whether the underlying cause in these cases is an isolated irritation of the vestibular branches of the acoustic nerve, or whether other disturbances underlie the phenomena. He admits that an irruption into the labyrinth and the consequent escape of the perilymph can cause an irritation of the vestibular nerves; but by supposing such a cause as competent to produce the phenomena it is not possible to explain the absence of all disturbances in some of the aforesaid experiments, and also the interchangeability of some of the symptoms; and, on the other hand, so far as the anatomical proof of a brain-lesion is demanded in the case of the aforesaid experiments on dogs, it is impossible to adduce it from the post-mortem conditions. A great difficulty arises here,—all the more important since all those authors who seek the cause of the disturbances under consideration in an irritation of the vestibular branches of the acusticus are always referred to the want of an anatomically demonstrable brain-lesion in support of their views. Then, too, the anæsthesia of the cornea in other cases must be explained, since we know that it is referable to a lesion of the trigeminus, and especially to a branch in no way related to the ear. This Dr. Baginsky explains by alterations in the hydrostatic and hydrodynamic relations in the cranial cavity, productive of irritation at the base of the brain, as he can evoke similar phenomena by rapidly revolving dogs on the turning disk. Furthermore, all these phenomena may be produced by rapidly revolving dogs previously rendered deaf in both ears.

The conclusion from these experiments by rapid revolutions, therefore, is that, for the production of vertiginous symptoms the existence of one or of both labyrinths is not necessary, and that they can occur without any anatomically demonstrable cerebral lesion, simply and alone from disturbances in the circulation and changes in the pressure in the cranial space.

If these results be applied to the experiments on the labyrinth already detailed, it is evident that an anatomically demonstrable lesion of the brain is not necessary to produce the vertiginous symptoms under consideration. There is necessary only a disturbance competent to produce an irritation in that portion of the brain from which similar or identical phenomena may be evoked. If the reflex excitation of the brain for any reason should fail to be evoked, then the resultant disturbances are looked for in vain, notwithstanding the artificial opening of the labyrinth, and notwithstanding the irritation of the vestibular branches of the acoustic nerve. The question whether, in these experiments of Baginsky's, the brain is secondarily affected can be answered only in the affirmative, in view of the anatomical relations, the connections between labyrinth and ear, and the common blood-supply. This becomes all the more probable when in a physiological experiment a series of disturbances are observed, like anæsthesia of the cornea, which can only be explained by reference to a lesion of

the trigeminus at the base of the skull. It is altogether another question how these lesions occur. Whether they are induced by sudden reflux of the cerebro-spinal fluid after opening of the labyrinth, or through changes in the circulation, or through frictions of the brain on the base of the skull, with concomitant action of both the first factors, demands further investigation, which Dr. Baginsky proposes to make at some future time.

EXPERIENCE WITH ELECTROLYSIS IN DERMATOLOGICAL PRACTICE.

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THE introduction of electrolysis into dermatological practice is due to Dr. W. A. Hardaway, of St. Louis, and Dr. H. G. Piffard, of New York, who both began the use of this method about the same time. It was at first employed altogether for the removal of superfluous hairs, but within the last five or six years its use has been much extended. It is now frequently used for the destruction of warts and other small epithelial growths, pigmentary and vascular nævi, small tumors of the sebaceous glands, telangiectases, and similar affections. In this paper I purpose to detail some personal experience with the method.

REMOVAL OF SUPERFLUOUS HAIRS.

Electrolysis has been most frequently used for the permanent removal of superfluous hairs. In addition to the appliances to be presently mentioned, the operator who attempts to treat a case of hirsuties by this method needs a steady hand, clear vision, and above all an abundant stock of patience. Without these three requisites, no one should undertake the treatment of such cases.

The battery used should furnish an evenly-acting current of moderate power. I have used both the Flemming and McIntosh batteries with comfort, and with satisfactory results. For the last two years I have employed the latter exclusively, using a current of from six to twelve cells.

The electrodes consist of one ordinary sponge electrode attached to the positive pole and held in the patient's hand. This is used to make and break the circuit. The electrode attached to the negative pole consists of a fine needle in an insulated handle. The handle I now use is of wood, with a brass rod passing through its centre and small binding screws at each end for the purpose of holding the needle and of fastening the handle to the conducting wire-cord. The handle is made pretty thick, so as to enable it to be held firmly. A very thin ivory handle, which I formerly used, cannot be held as steadily as the thicker one.

The best needle I have used is one made by A. M. Leslie & Co., of St. Louis, for my friend Dr. Hardaway, of that city. It is made of a composition of platinum and iridium, is very fine, smooth, and flexible, and does not break easily. I have tried the finest obtainable steel needles and dentists' and jewellers' "bristles," but with much less satisfaction than the platinum-iridium needle referred to.

A chair with a head-rest—an ordinary dentist's or oculist's chair—is absolutely essential to steady the head of the patient during the operation. For the greater comfort of both operator and patient, a reclining chair which can be fixed at any angle is decidedly better.

To proceed with the operation: The patient is placed before a good light—avoiding direct sunlight unless modified by frosted glass—and directed to take hold of the handle of the sponge electrode, the sponge, of course, having been previously moistened. The operator then sits a little in front of and to the right of the patient, and takes the needle electrode in his right hand, holding a pair of tweezers with flat, narrow jaws in his left. The needle is then gently insinuated into a follicle by the side of the hair until the bottom of the follicle is reached. This is manifested by a slight resistance to the onward passage of the needle. The patient is then directed to touch the sponge with the palm of the other hand, thus closing the circuit. The current will immediately pass and the electrolytic action be made manifest by a little frothing around the needle. In some skins also a little wheal will be raised about the follicle. In from twenty to forty seconds the hair can be extracted with the tweezers without the slightest resistance or pain. If the hair does not come away with perfect ease, the papilla has not been destroyed, and the needle should be per-

mitted to remain and the current to pass a little longer. The current is broken by removing the hand from the sponge electrode. This gives less pain than if the current is closed and opened with the needle.

If the hairs are very close together, they should not all be removed at the same time. The hairs should be picked out here and there; otherwise the points of irritation will be in too close proximity, and, if sufficiently intense, may produce small areas of sloughing and leave scars. If the operation is properly performed, no visible scars should remain.

A sitting may last from fifteen to thirty minutes. Very few operators can extend it beyond the latter time. The sittings may be repeated every other day, or, in cases where time is important, every day. After the operation a lotion containing a drachm of oxide of zinc and two drachms of glycerin in two ounces of rose-water should be applied. It covers the redness of the skin and relieves the irritation, which is sometimes considerable.

The following brief notes are outlines of cases in which I have used the electrolytic method:

Case I.—My first case of hirsuties was in a lady, aged 25, blonde, and a school-teacher by occupation. She was referred to me by my friend Dr. Wilmer Brinton, to whom she had applied for relief. Her chin was covered with a pretty thick growth of stout hairs.

The patient was under treatment about six months, during which time I removed no less than fifteen hundred hairs. In this case I frequently employed a current of twelve to fifteen cells, which I am now convinced was too strong. It not only gives unnecessary pain, but is liable to produce some destruction of the peri-follicular tissues and leave small scars. About one-third of the hairs returned after the first operation. The sittings were repeated at intervals, about thirty operations being required to complete the cure.

Case II.—The second case was a married lady, brunette, 30 years of age. She had a truly formidable beard upon her chin. In addition, she had also a decidedly noticeable growth of hair upon her upper lip. The greater number of hairs were thick and black. These were removed with ease, few of them returning after the first operation. There was, however, quite a large number of long, fine, light-colored hairs, which gave considerable trouble on account of the difficulty of entering the follicle with the needle. This patient has been under treatment nearly two years, and during that time over three thousand hairs have been removed from her face. She still returns about once in every two months, for the purpose of having a few scattering hairs removed.

The destruction of the hairs under the chin in this case was especially difficult, on account of the tortuosity of the follicles, which rendered it almost impossible to reach the papilla with the point of the needle. The flexible needle of platinum and iridium renders the process much easier, however, than it was at first, when I used a steel needle. The skin of this patient is exceedingly sensitive, and a current of eight cells is the extreme limit of strength which can be used with comfort.

Case III.—This was a widow, blonde, aged 37. She had two small tufts of thick hairs growing on the chin. There were about fifty hairs, which were removed at one sitting. About fifteen returned, and were removed at a second sitting. Three months later she returned again with five moderate-sized hairs, which were then destroyed. She has had no return of any growth for upward of a year.

Case IV.—A blonde, aged 20, who had a very profuse growth of fine, light-colored hairs upon the chin and cheeks. The hairs were difficult to remove, and about thirty per cent. have returned. The patient has become discouraged and discontinued the treatment after the first series of sittings. About twelve hundred hairs were removed in this case.

Case V.—A brunette, teacher, 24 years of age, referred to me by my friend Dr. Charles F. Percivall. She had two very dark, pigmented nævi on the face, which were thickly covered with stout black hairs. The hairs were destroyed by electrolysis, and the nævi disappeared also, leaving a flexible, white, flat scar. There was no ulceration or suppuration following the operation, although the hairs were close together and all were removed at one sitting.

Case VI.—This patient was a drug-clerk, aged 23, who had a number of short, thick, black hairs growing upon the nose. In six sittings he was entirely freed from this unwelcome growth. There is no evidence whatever of any scar upon the smooth integument covering the nose. The openings of the sebaceous glands seem to be entirely normal. In this case the follicles were wide and perfectly straight, and, as a consequence, little difficulty was met in destroying the hairs. A few of them returned, which were destroyed at subsequent sittings.

Case VII.—A seamstress, brunette, 25 years of age. She had a pretty free growth of hair upon the chin, and a noticeable moustache. In this case also there were many of the long, fine, light hairs so troublesome to remove on account of the difficulty of getting the needle properly into the follicle. The patient is still under treatment, but the progress in her case

is very encouraging, as only a small proportion of the hairs return.

PIGMENTED NÆVI.

Case VIII.—A medical student, aged 20, had several brown, elevated nævi upon the face. One, about the size of a split pea, upon the upper lip, gave him considerable annoyance on account of the disfigurement it occasioned. The growth was transfixed by a fine steel needle (a jeweller's bristle), and the current from eight cells passed about a minute. The needle was then withdrawn and inserted at right angles to the former puncture and the current again passed. This procedure was adopted with all the other growths upon his face. On the following day each spot operated on was covered by a dry, brownish scab, which fell off on the third day. Two months after the operation, the site of the nævi could no longer be discovered. Absolutely no cicatrix was produced.

Case IX.—A young lady, teacher, light blonde, 19 years old. The patient had eight pigmented moles upon the face, varying from one-eighth to one-fourth of an inch in diameter. Some of them were elevated and others flat. Electrolysis, as in the last case, was perfectly successful in causing the disappearance of the blemishes after three sittings. No scars remain.

Case X.—Mother of the preceding patient. She is 40 years of age, complexion dark. She had a prominent brownish mole at the tip of the nose, and two small patches of xanthoma on the upper eyelids. Electrolysis was used on all the growths. The mole disappeared after the first operation. In the xanthomatous growths the operation was repeated at the end of three weeks, with complete success. This patient exhibits no evidence of disease of the liver or other internal organ.

Case XI.—This was also a case of small pigmented nævi upon the face in a young man, 21 years of age. One sitting resulted in the permanent removal of the blemishes.

PAPILLARY AND EPITHELIAL NEW FORMATIONS.

Case XII.—A young man, aged 23, with gonorrhœal warts situated on the corona glandis and on the mucous surface of the prepuce. They had been previously cut off with scissors, but had returned. Cauterization with nitric acid was proposed to him, but declined on account of the pain involved. Electrolysis was entirely effective in removing them in two sittings. The growths have not returned.

Case XIII.—A professional friend, aged 50, with a branching, rapidly-growing wart on the upper lip. It was frequently irritated in shaving. Contemplating the possibility of the growth becoming malignant if subjected to constant irritation, he applied to me to have it removed. By means of electrolysis, the growth being transfixed by the needle in several directions, it was entirely destroyed in two sittings. No scar was left to mark the site of the growth. The pain was slight.

Case XIV.—A man, aged 36, with a hard, flat wart upon the forefinger. It was removed by the same procedure, passing the needles through the skin under the growth. No ulceration or scar was produced.

SEBACEOUS CYSTS.

Case XV.—A medical man, aged 38, with an enlarged sebaceous follicle on the nose, which frequently became as large as a small pea. Two sittings, during which the needle was inserted into the gland-duct as well as passed through the base of the little tumor in several directions, resulted in its total disappearance.

Dr. Hardaway speaks highly of this method in the treatment of the small retention-cysts called milium. It promises to be a valuable substitute for excision in the case of small wens, especially about the face.

ACNE ROSACEA.

Case XVI.—An aggravated case of acne rosacea in a man, 36 years of age. The usual treatment was followed for the acne and the diffused redness of the skin. Visible vessels were pierced with the electrolytic needle and so obliterated. The patient, after obliteration of all the enlarged vessels, returned to his home in Nebraska much improved. In a letter recently received he asserts continual progress towards recovery.

Case XVII.—A case of simple rosacea in a man aged 38 years. The enlarged veins were pierced in a number of places with the needle, and a current of six cells passed for two minutes. In most cases a single operation resulted in the obliteration of the veins. In some a second or even a third operation was necessary before the result could be pronounced a success.

INGROWING EYELASHES.

Case XVIII.—Michel, of St. Louis, gave the first impulse to the introduction of electrolysis in dermatology by his successful use of the method in removing ingrowing eyelashes. I have had one case of this annoying trouble, in which the mal-directed hairs were destroyed by means of the electrolytic needle. In order to diminish the pain produced by the operation, I used a five-per-cent. solution of cocaine with success. I have on several occasions used the cocaine on the skin when removing the hairs from an especially sensitive area, such as the cheek and angle of the jaw, but without producing any noticeable reduction of sensibility.

VASCULAR NÆVI.

Case XIX.—My friend Dr. W. A. Hardaway has had good success, as demonstrated

to me by a case under his care, with electrolysis for the destruction of vascular nævi (port-wine mark of the skin). In the only case in which I have had opportunity to try it since seeing his case, the success was only moderately good. Where these nævi are small, and especially in young children, careful excision, followed by a plastic operation, promises excellent results. In adults, however, electrolysis deserves a patient trial in the treatment of this deformity.

The above constitutes my experience with this method, which I believe is destined to prove its usefulness in a great many affections, of minor importance, perhaps, so far as their effect on the duration of life is concerned, but which nevertheless are very annoying to those who are afflicted with them. To many women the removal of a beard or other disfiguring blemish is of as much importance as the cure of a pneumonia or a chronic internal disease which may tend to shorten life.

BRIEF NOTES ON THE TREATMENT OF ACUTE CORYZA.*

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IT is related of a celebrated French physician that, when asked how he treated a cold in the head, he replied, "With contempt." That some colds may be safely treated in this manner universal experience will testify. That many attacks of acute coryza cause pain and distress sufficient to demand the best efforts of the physician for their relief must be not alone within the observation, but among the personal experiences, of all. The writer has had occasion to test the methods here related upon his own person, and can therefore speak with a realizing sense of the relief afforded from annoying symptoms. The property possessed by belladonna of checking secretion from mucous surfaces long ago suggested the employment of this drug in acute coryza. I have, however, been unable to find any reference to it in the treatises of Mackenzie or Bosworth, the most recent works published in the vernacular upon the special subject of diseases of the upper air-passages.

Dr. Beverley Robinson,† of New York, speaks highly of the local use of a powder of belladonna-leaves, morphine sulphate, and acacia, but does not mention the internal administration of the drug. J. Solis-Cohen‡ alludes favorably to the use of the tincture of belladonna in doses of twenty minims. M. Gentilhomme§ reports that he has succeeded in arresting the disease in several bad cases, attended with abundant secretion, fever, and embarrassment of respiration, by the use of atropine sulphate in doses of one-half milligramme given at the commencement of the inflammatory period. My own experience with atropine has been equally fortunate. It must be given early in the attack, and when so given is veritably abortive in nine cases out of ten. I have tried several methods of administration, employing granules and triturates of $\frac{1}{100}$ gr. and $\frac{1}{120}$ gr., and a solution of one grain of the salt to the ounce of water, of which the usual dose is four minims (gr. $\frac{1}{120}$). The latter method is preferable with patients upon whose discretion we can fully rely, and to whom we feel no hesitation in intrusting a prescription for a poisonous drug. With other individuals it is safer practice to hand the patient three or four triturates or granules of the dose desired, writing explicit directions as to their use upon the envelope containing them. The manner of using the remedy which has proved most efficacious is to administer $\frac{1}{120}$ grain at the first interview (if this be on the first or second day of the attack), and to repeat the dose in four hours, provided there be then no dryness of the throat. The rule for the third dose is the same,—dryness of the throat or dilatation of the pupils being the indication to stop the remedy.

When a case is seen during the first twenty-four hours, two doses will often bring the affection under such complete control that the patient does not resort to any further medication. Secretion of thick yellowish mucus, requiring the occasional use of the handkerchief, will, however, usually persist for about a week, but there is ordinarily no embarrassment to breathing. Sometimes it is necessary to repeat the dosage in the same manner on the following day, the indication being renewal of watery discharge, suffusion of the eyes, and

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* Read before the Philadelphia Laryngological Society, February, 1885.

† A Practical Treatise on Nasal Catarrh. New York, 1880, p. 600.

‡ Diseases of the Throat and Nasal Passages. Second Edition. New York, 1879, p. 336.

§ Union Médicale, September 4, 1883; Medical and Surgical Reporter, December 15, 1883, p. 66.

more or less "stuffiness" of the nose. In order to secure the full therapeutic benefit of the atropine in severe cases, it must be pushed until the physiological effect is produced,—that is, dryness of the throat and dilatation of the pupil. One patient complained of the former symptom that it was worse than the disease. In one case $\frac{1}{16}$ gr. of pilocarpine hydrochlorate was administered by the mouth, with the effect of relieving the unpleasant sensations. Ordinarily, however, the dryness is readily overcome by allowing a few pellets of ice to melt in the mouth, or by rinsing the mouth from time to time with cold water.

More recently the effect of cocaine in emptying the engorged venous sinuses of the nasal mucous membrane, first prominently called to professional attention by Dr. Bosworth,* has led to its employment in the treatment of acute coryza. While the relief is almost immediate, even in cases where there has been great obstruction to breathing, the effect passes away in from two to three hours, and the drug is too expensive† to use as often as may be necessary. I have found the fluid extract of erythroxylon to be equally efficacious, if instilled into the nose in sufficient quantity. The alcohol of the fluid extract is, however, objectionable, producing considerable smarting. An infusion can be made of equal strength‡ by the addition of a small quantity of glycerin, and by this means we get rid of all the unpleasant effects not inseparable from the drug. The employment of a preparation of coca will give excellent results in connection with the atropine treatment. The patient is given a glass "dropper" slightly curved at the end, such as is used by oculists, and instructed to flood the nose with the infusion of coca whenever it becomes "stopped up." He is directed to draw the medicine back into the throat, in order to make sure of reaching the posterior ends of the turbinated bodies.

While not denying the advantage of the good old methods of treating acute coryza with Dover's powder, foot-baths, etc., I am convinced that the plan above described—namely, small doses of atropine pushed to the point of physiological effect, with local use of cocaine or infusion of coca—will be found the most convenient and effective for the majority of cases. Like everything else, even quinine, it will sometimes fail. In one case of acute coryza I tried pilocarpine, producing but slight perspiration, but apparently curing the cold. As my experience is limited to this one case, which may be an example of *post hoc* and not *propter hoc*, I do not claim anything for the treatment. In all cases, however treated, a brisk saline cathartic administered at the outset is found of the greatest advantage.

Where cases are seen too late to employ atropine with advantage, good results have sometimes been obtained from ammonium salicylate in doses of ten to fifteen grains, repeated every second hour until *tinnitus aurium* is produced. Salicin, salicylic acid, and sodium salicylate have not seemed to be equally efficacious with the ammonium salt.

In a few cases of influenza, in which the coryza has been quite severe, in some of which there has been much conjunctival distress, and in all of which headache and lassitude have been marked, though the febrile symptoms have been mild, cinchonidine salicylate has apparently been of great benefit, while the infusion of erythroxylon has been of inestimable value in relieving the distress occasioned by the nasal symptoms.

* Medical Record (New York), November 15, 1884.

† This objection, in the interval between the reading and the publication of this paper, has been obviated.

‡ Mr. Stedem, of Philadelphia, makes an infusion of coca, two grains to the minim. I am indebted to Dr. Jurist for a specimen of this preparation.

TRANSLATIONS.

TREATMENT OF ASTHMA BY PYRIDINE.—Prof. Germain Sée terminates a lecture on the treatment of nervo-pulmonary asthma and cardiac asthma with these conclusions:

1. Whatever may be the form of the asthma,—whether nervous, emphysematous, or catarrhal, whether primary or of gouty or dartrous origin,—the iodides constitute the true curative agents. When iodism supervenes, pyridine will come in play. It should be considered as the most certain means of curing the access. It is the best palliative, as iodine is the efficacions remedy.

2. Pyridine is superior to the injection of morphine. Its action is more durable and much more inoffensive.

3. In a case of nervous asthma the access may thus be stopped completely. In grave

asthma complicated with permanent pulmonary lesions, the duration of the treatment should continue for eight or ten days, in order to insure the permanency of the result. When there is cardiac asthma, with or without renal disease or dropsy, pyridine can still render the greatest service in combating the most persistent and the most painful of the symptoms which torment the cardiac patient,—that is to say, oppression, whether continuous or paroxysmal.

Pyridine is a product of combustion of organic matter, and is thought to be the curative agent in the smoke derived from asthma cigarettes, pastilles, etc. It is a colorless liquid, with a penetrating odor, and the method of administration recommended is to pour some out upon a plate in a small room and inhale the vapor, three times a day, for from twenty to thirty minutes at a time.

The physiological effects of pyridine are quite positive, reducing the reflex excitability of the spinal cord and of the respiratory centre of the medulla, and when inhaled it soon appears in the urine. It causes marked somnolence without loss of intelligence and without insensibility, therefore differing decidedly from the effects of chloroform and ether.—*Bull. Gén. de Thérapeutique*, June 30.

Treatment of Croup by Fumigations.—The method of treating croup by fumigations is growing in favor. Dr. Aumaitre reports a case (*Gaz. Méd. de Nantes*, No. 8) of a boy, 5 years of age, who had a troublesome, brassy cough, with difficult respiration. The submaxillary region was tumefied by glandular engorgement; on the pillars of the fauces and the tonsils were diphtheritic patches. Ipecac was given, and false membranes were expectorated; the throat was swabbed with lemon-juice, and small doses of aconite given hourly, as there was considerable fever. The ipecacuanha was directed to be repeated the same evening, and, in order to act topically upon the false membranes, a five-per-cent. solution of phenic acid in glycerin was prescribed, of which a teaspoonful was vaporized with heat sufficiently to have the room appear smoky. The next morning his mother again made him vomit, as his breathing was embarrassed again; but he had passed a good night. Tubular pieces of false membrane had been expectorated, and the diphtheritic deposit in the throat was less marked. The fever also was less, and the patient was better. The vapors were of great service in relieving the cough and the breathing. The same treatment was continued, except that spirits of turpentine and boiling water were ordered to be used for inhalation. The patient made a rapid and complete recovery after five days' treatment. The prompt recovery was attributed to the use of the carbolized and terebinthinate fumigations.

Inutility of Curare in Epilepsy.—Messrs. Bourneville and P. Bricon conclude, from a number of experiments reported in the *Archives de Névrologie*, that curare is of no value in epilepsy, the results obtained being quite different from those reported by others. Of twenty-one cases suffering with various forms of epilepsy, some adults and some infants, subjected to treatment by hypodermic injections of curare for a period of from three to six months or more, only one appeared to derive any real benefit. One other seemed slightly ameliorated. In a third the muscular movements were less violent, although the number of attacks was not diminished. The results, therefore, were not encouraging, and the reporters think that curare should not be retained on the list of remedies useful in the treatment of epilepsy.

Tannate of Mercury for Syphilis.—The most eligible form of mercurial for the treatment of syphilis, according to Leblond, Lustgarten, and Kaposi, is the tannate, containing fifty per cent. of the metal.

℞ Hydrargyri tannat., (3 g.) gr. xlv;
Ext. et pulv. glycyrrhizæ, q. s. M.

S.—Make sixty pills, and take from four to eight daily.

This form of mercurial does not disturb digestion, and has been found most efficient.—*Revue Médicale de Louvain*, June, 1885.

Hysterectomy by the Vagina.—At the meeting of the Société de Chirurgie for June 24, M. Tillaux and M. Ferrier each reported a case of vaginal operation for the removal of the uterus for epithelioma. Both cases completely recovered from the operation.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, AUGUST 8, 1885.

EDITORIAL.

JOURNALISTIC CHANGE.

THE MEDICAL CHRONICLE, a successful monthly medical journal edited by Dr. George H. Rohé, of Baltimore, has, with the present issue, become consolidated with the PHILADELPHIA MEDICAL TIMES.

We take special pleasure in announcing that Dr. Rohé will hereafter be associated in the editorial management of the TIMES, and will pay attention particularly to giving Baltimore and Washington medical matters greater prominence in its pages than they have hitherto received.

In token of its increased scope and non-sectional character, the word "Philadelphia" will be dropped from its title at the end of the current volume in September. We hope that these changes will prove acceptable to our readers.

BACTERIA AS THERAPEUTIC AGENTS.

IT is a fact repeatedly demonstrated in the experience of those engaged in culture-experiments that some of the recognized pathogenic schizomycetes are very liable to destruction by the ordinary bacteria of putrefaction. The suggestion has been half humorously, half seriously made that this fact might be utilized in the treatment of disease, but the honor of the first actual application of this physiological antagonism to therapeutics appears to belong to Prof. Arnoldo Cantani, of Naples.* The first experiments made by Prof. Cantani were directed to tuberculosis, and he selected the bacterium termo to antagonize the bacillus tuberculosis of Koch. He proceeded first to determine the effects of bacterium termo upon the animal organism when applied to the conjunctiva, or injected into the stomach or under the skin, and especally when inhaled into the lungs in the form of spray. The results of numerous experiments made upon animals demonstrated conclusively the complete innocuousness of this form of bacteria when introduced in this way. He then administered a solution of a pure culture of the bacterium termo to a patient forty-two years of age, presenting the usual symptoms of acute pulmonary phthisis,—fever, great emaciation, and loss of strength,—with a cavernous excavation in the left apex, and sputa containing tubercle-bacilli in abundance. The results were sufficiently striking to give in his own words. "On the 4th of May the inhalations began, using a pure culture of bacterium termo diluted with gelatin and meat-broth, by means of a hand-spray apparatus with double rubber bulb. The expectoration rapidly decreased, until it ceased entirely during the last few days of the experiment. The tubercle-bacilli likewise soon diminished from the expectoration, while the bacterium termo could now be detected in their place. On June 1 the tubercle-bacilli were completely absent from the expectoration, and did not reappear, while bacterium termo became more and more abundant (the expectoration being examined daily). The fever decreased so that during the last few days of the observation the evening temperature did not go above 38° C. (100.4° F.), and the bodily weight was decidedly increased. The appearance of the patient greatly improved, the general condition became excellent, and the patient felt much better." Although animals inoculated with the sputum at the beginning of the treatment had presented signs of local and afterwards of general tuberculosis, those inoculated with the sputum found to be free from tubercle-bacilli

* Versuch einer Bacteriotherapie. Centralblatt für die Medicinischen Wissenschaften, No. 29, July 18, 1885.

remained healthy and gave no trace of tubercular disease.

This demonstration satisfies the requirements of science, and apparently establishes it as a fact that the antagonism known to exist between the bacterium termo and the bacillus tuberculosis may be utilized for therapeutic purposes *cito, tuto et jucunde*. At the same time, Prof. Cantani is not sanguine as to the further application of this principle in treating cases where the bacilli have become embedded in remote organs; but it affords a hope that something may be expected from this treatment where the tuberculous process in the lungs is not extensive and appears to be more or less superficial. It is also suggestive as regards the employment of other bacteria which are known to affect unfavorably the growth of certain pathogenic micro-organisms.

NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

IN my last letter the social aspect of institutions supported by voluntary contributions was considered, and the prospect is certainly clouded. In this letter something may be said about the political aspect of medicine at the present time. We are to have a large addition to the electorate in a socially downward direction; and this fact offers an opening for men other than the aspiring barrister, the successful commercial man, and the country squire with local influence at his back. There is also redistribution approaching the equal electoral districts which formed one of the six points of the Chartist agitation of fifty years ago. With such a prospect, of course many professional men see an opening for their advancement, and certainly a few more medical men in the House would be an acquisition. The few medical men at present in the House are none of them prominent members,—Sir Lyon Playfair not counting as a medical man, though respected by the profession. (It is a pity, in one sense, that this honored parliamentary veteran has chosen to stand for South Leeds, instead of continuing as the representative of the Universities of Edinburgh and St. Andrew's. The *Daily Chronicle's* explanation of this is that so many of the medical graduates of these two universities in good country practice are Tories. Certainly this is true of the men of my personal acquaintance.) And it would be well for the House of Commons, and well for the people of the United Kingdom, if more medical men were in the House, and that these should be men of earnestness of purpose, of energy and determination, and fluent speakers.

One such man is coming forward for Chester in the Liberal interest,—viz., Dr. Balthazar Foster, the leading physician of Birmingham. Dr. Foster is still a comparatively young man. A smart man, inclining to be short, of pleasing address and good manner,—a pleasant, cheery gentleman, with his wits about him,—he soon made his way in Birmingham, even among some very able men. He is not a copious medical writer, but what he has published is of excellent quality and stamps him as one of the leading physicians of the day. Some time ago he wrote a pamphlet on "The Political Powerlessness of the Medical Profession," in which he told the medical world some home-truths which it could not deny. He urged there that, instead of being so afraid of the world, in the shape of actual or potential patients, medical men would do better for themselves and better for their profession if they took up a little firmer position and interested themselves in public affairs. They were too afraid of offending a patient—in other words, too exclusively devoted to their own individual interests—to discharge their duties as citizens, in his opinion; and yet they possessed knowledge which rendered it eminently desirable that they should form part of certain public bodies, especially in this day of sanitation and of preventive medicine. Acting on this belief, Dr. Foster is about to enter Parliament. In so acting he is doing well. Not only has he a good local position, with a reputation as a medical author, but he is also President of Council of the British Medical Association,—a position of eminence and weight. He is the representative of the representative principle, and took an active part in the working out of the new By-Laws of the Association, which have rescued the Association from the thraldom of a set of older members of Council, known among the reform element as "barnacles." They were Vice-Presidents and members of the Committee of Council *ex officio;* and a very conservative party they were. But they have been swept away, and directly-elected representatives have taken their place,—men responsible to the members who send them up, and who have to give an account of their stewardship. The Association has reformed itself, and in its new purity stands forth as the representative of the medical profession; and, what is more, its voice will be heard and its influence will be felt.

The General Medical Council is a dead failure. Consisting of the representatives of the medical corporations, with a sprinkling of members chosen by the Crown, it has disappointed every hope entertained of it, and

falsified every prediction of its utility. It is hopeless. It does not even undertake the labor of prosecuting unqualified practitioners, leaving this part of its duty to any one who will undertake it. The medical corporations do not represent any interests but their own, and no good can come or be expected from them. It is notorious that the much-talked-of Medical Bill has been thwarted by the persistent opposition of the threatened corporations.

The British Medical Association consists of medical practitioners, and speaks the voice of the medical world, and in this Association Dr. Foster is at present the guiding spirit. When he gets up to speak in Parliament, he will speak with authority and a sense of responsibility to the large constituency of which he will be the representative as truly as he is of Chester. That such a man will be an advantage to the new House there can exist no doubt, and his bearing and attitude will probably give to medicine within the walls of St. Stephen's a weight hitherto wanting.

The House decided upon the medical profession aiding the Registrar-General by giving certificates of death, without saying as much as "by your leave;" and once the certificate given, each registrar grants copies, and does as he likes, pocketing anything that is to be got, while the doctor gets nothing. I heard a fine old country doctor the other day at Gloucester say emphatically on this point, "Had the government laid some duty upon the agricultural laborer without remunerating him for it, the agricultural laborer would just have told the government that he would not stand it; but we,—why, we are only doctors: we will stand anything!" Individually, he did not look like a man who would stand much.

And now there is an agitation against medical relief disqualifying a man for the franchise. Anything else which he cannot pay for makes a pauper of him; but medical aid, why, that can be thrown in,—that does not matter! If it was a handful of potatoes, then the man is a pauper. It all tells what is the estimate of the profession in the eyes of the public. The General Medical Council cuts a pretty figure before the world, and the manner in which medical relief was discussed by a lot of tatterdemalions in Hyde Park, the other Sunday, ought to have roused the infirm old lady in Pall Mall (the College of Physicians) into some sort of indignation, had any of the courage said to be innate in an Englishman survived in her aged bosom. But no; nothing of the kind! Medical men must give no offence! On no account must they do anything—but allow people to trample on them! That is the creed of the respectabilities who regard themselves as "the heads of the profession." Well, people generally reap as they sow!

As an instance of what members of the profession can do in the way of abasement, we may take the case of another aspirant for Parliamentary honors in the ranks of the profession. On previous occasions I have had to express my dissatisfaction with the conduct and behavior of Mr. Abraham Ernest Hart in his position as editor of *The British Medical Journal*. Now he comes before the public as a Liberal candidate for Mile-End, in East London. "They seem to have made up their minds about the Contagious Diseases Acts at the East End. The Mile-End electors have not only made up their own minds, but they have even changed the mind of Mr. Ernest Hart, who last night pledged himself to vote for the unconditional repeal of the obnoxious measure." For the better understanding of the Contagious Diseases Acts, it may be said briefly that the Contagious Diseases (Human) Act refers to the public women of garrison-towns, who are by its machinery largely prevented from spreading disease by their trading in their persons. Of the good which the Acts have accomplished there is no question, and, next to vaccination, the profession is most solid on the Contagious Diseases Acts. Yet, at the imperative mandate of the radical riff-raff of Mile-End, this prominent member of the medical profession deserts his colors and goes over to the enemy!

The *Pall Mall Gazette* follows up the subject by another paragraph, where it states, "Mr. Ernest Hart's suspiciously sudden conversion to a sound belief in the abominable character of the Contagious Diseases Acts has aroused misgivings among those who ought to be rejoicing over the penitent. Mr. Hart, they say, was a member of the central committee of the society for extending the Contagious Diseases Acts to the whole civil population, and his sudden conversion is really due to local pressure applied by zealous and intelligent electors in Mile-End. It may be so; but if Mr. Hart is well looked after, he may stand firm in his new path. It is at least a much better one than the demoralizing superstition which he has now publicly repudiated."

As a man zealous for the honor of his profession, the writer experiences some difficulty in keeping his temper calm over this matter. Here is a medical man turning a renegade and an apostate, giving up the convictions of the profession at the beck and nod of "zealous and intelligent electors" at Mile-End. Are these prominent local politicians better judges of such a subject than the medical profession? Cobblers and old-clothes men, who know nothing whatever but the one-sided literature furnished to them by crazy fanatics, dictate to a medical man—and one, too, who has been in so peculiar a position for knowing the actual facts, and who has hitherto lauded the Contagious Diseases Acts—what he has to believe and how he has to vote as their nominee. A pretty pass this, surely. Here were we rejoicing to think that, with

some more medical men in Parliament, medical interests will be better looked after and the profession treated with more respect, and what do we see? A medical man turning his coat and forsaking his faith at the bidding of the rag-tag and bobtail of the East End. Instead of strengthening the position of medicine in the House of Commons, here is the man who has had the most ample information on the subject pledging himself to vote for the repeal of what has been a most beneficent measure of legislation, as the voice of the profession testifies, and thus helping to the utmost of his ability to discredit his profession before the House of Commons. What the Association will do in the matter remains to be seen. Whether they will endorse this conversion and sanction it by retaining Mr. Ernest Hart in his official position will soon be apparent. The annual meeting at Cardiff comes off this month, and no doubt the matter will be warmly debated. Perhaps Mr. Hart may find himself "well looked after" at the other end of the pole. The Association may still be prejudiced enough—not being under "local pressure applied by zealous and intelligent electors" at Mile-End—to believe in "the demoralizing superstition" which this candidate for Parliamentary honors "has now publicly repudiated." The question arises, Will the Association "repudiate" him?

How it can, with any claim to self-respect or consistency, retain Mr. Hart's services the writer cannot see. But, then, his vision may be defective or not perfectly achromatic. Anyhow, it will be a curious spectacle—worth putting on record—to see the member for Mile-End repudiating on the floor of the House of Commons his cherished convictions as editor of the *British Medical Journal*,—especially if he still remain the last.

My old teacher of logic used to speak of a thing being "true in science, but false in religion." So, in the editorial office and the columns of the *British Medical Journal* the Contagious Diseases (Human) Acts are an instance of benevolent legislation; on the floor of the House of Commons they are a "demoralizing superstition." Of course, much is forgiven and tolerated from an erring man who also has his good points and possesses unquestioned talent as an editor: but a line must be drawn somewhere. The barber who objected to shave a chimney-sweep was reminded that he had just shaved a miller. He replied, "I must draw a line somewhere: so I draw it at millers." Where the Association will draw its line remains to be seen. Only it can scarcely expect more consideration, more respect, more fitting treatment from the House if it permits one so peculiarly placed to flaunt in its face his conversion to a belief in the iniquity of Acts which its members hold to have done unspeakable good, and which have the undivided support and adherence of the medical profession. The profession must decide—or, rather, that select portion of it which forms the Association—whether they are or are not deserving of the respect of the public. "The zealous and intelligent electors"—the rabble—of Mile-End know their minds and will look after their nominee; they will not tolerate any flinching. There is no escape from their grip; they will hold their man tight enough. The only loop-hole for him is the leniency of the members and the influence he can bring to bear upon the rulers of the Association. Hitherto he has found apologists and supporters even among many of the leading men in the profession. Possibly he has his own reasons for thinking they will screen him once more. If they do, what can the medical profession over the face of the globe think of us?

Another reported candidate for a new metropolitan constituency is Dr. Danford Thomas, the respected coroner for Central Middlesex, the successsor of Wakley, Lankester, and Hardwick. Dr. Thomas is favorably known personally and officially to his profession, while his courtesy, considerateness, and general good sense have made him popular with the lay persons with whom he is brought into contact. That he would be listened to with attention by our legislators is certain, and from his official position he would be able to speak with authority on certain topics important to the public health and morals. Especially will such medical members be required when the Criminal Law Amendments Bill, protecting girls under fifteen years of age (which, as said in my last letter, has already passed the Lords), comes to be discussed in the House of Commons.

If the subject is gone into as it just has been threshed out by a leading London evening paper,—whose articles might well be entitled "The Business Aspect of Libertinism,"—I am not quite sure whether a respectable medical man could listen to, let alone take part in, the discussion.

There are, too, other matters to be gone into where it will be of decided advantage to the House of Commons to hear medical men of experience speak, and where it will be well that there are competent persons to correct promptly and on the spot misstatements which are certain to be made there on the subjects of vivisection and vaccination. It is a curious fact that the Radical party are so venomously opposed to anything the medical profession upholds. They detest vivisection, of which they know nothing; they even call in question the value of vaccination. They cannot remember the pitted and disfigured population before the days of vaccination; they do not read their histories, and know not how many of the Stuarts were the victims of smallpox. They see in Jenner's magnificent discovery only a means of spreading disease. They hanker after homœopathy

and deride legitimate medicine. They wilfully shut their eyes to the evidence in favor of the Contagious Diseases Acts, and inflame themselves against them by the perusal of one-sided literature. There is a poor prospect for medical interests in the next House after the newly-enfranchised voter has had his say,—unless there are medical men who know their own minds in the House. It will, indeed, be well if the profession be fairly represented,—not by such weak-kneed brethren as the would-be member for Mile-End, but by men like Dr. Foster, who can be trusted. For certain it is that if the medical profession does not bestir itself and set its house in order, the present contemptible position of the said medical profession will be aggravated, and more insolent liberties be taken with it than even what has occurred in the past. But then the men who are in position here at the present time listen no more to the warning voices lifted up by sundry individuals who see the tendency and the direction in which the profession is drifting than did the Hebrews of old to Isaiah and "the voice of him that crieth in the wilderness, Prepare ye the way of the Lord." The Lord's ways are not their ways!

J. MILNER FOTHERGILL.

BALTIMORE.

LEPROSY—TRICHINOSIS—THE FREE EXCURSION SOCIETY AND THE THOMAS WILSON SANITARIUM FOR SICK CHILDREN — A DRUGGIST'S FATAL MISTAKE—PERSONAL.

BALTIMORE, August 1, 1885.

THE "Chinese problem" has recently attracted considerable attention in this city. It is an open secret to "men about town," that several opium joints are in full fume in this city. Still graver, however, is the discovery of a case of leprosy among our resident Chinamen a few days ago. The physician who relates the case believes his diagnosis to be correct, but, inasmuch as the Chinaman left the city for New York as soon as he became aware of the doctor's suspicions, it is not at present possible to verify the diagnosis absolutely.

The patient was employed in a laundry doing a large business in the centre of the city, and if the disease is as contagious or infectious as claimed by many, we may, perhaps, soon look for an increase in the number of cases of this justly-dreaded disease.

Baltimore now shares with a few localities in Louisiana, Minnesota, and Wisconsin the unenviable reputation of having furnished a group of cases of leprosy. This Chinaman makes the fifth case reported in this city within the last seven years, two of which were natives of the State. One of these had never been beyond the limits of the State. Three of the cases lived for a time pretty near each other in one part of the city. The other two cases were importations, one being a native of Barbadoes and the other the Chinaman above mentioned.

Five cases and three deaths from trichinosis have occurred in this city within the last two months. In the third and fourth cases only was an accurate diagnosis made, and in one of the cases verified post mortem. The history of the cases, which are the first reported in this State, is as follows. A German laborer, his wife, and five children composed the family. On May 9 last the wife purchased one and a half pounds of fresh pork, which on the following day was eaten in the raw state by the husband, wife, and three of the children. One of the children ate only a mouthful of the meat, and escaped with very slight symptoms, none, perhaps, being characteristic of trichinosis. Two days after eating the pork the husband was taken sick with violent abdominal pains, which increased in severity, accompanied by vomiting and purging, until his death on May 16. The fatal result was attributed to cholera morbus, and was so reported to the health department by the physician who attended the case.

The wife and two of the three children were also taken sick with abdominal pains, and on June 1 were admitted into the City Hospital, where one of the children, a boy, died four days later with symptoms of intense gastro-intestinal irritation. No autopsy was made in this case, and the true cause of death was not discovered. It is only in the light of the two subsequent cases that the probable diagnosis of trichinosis seems justified.

The mother and the remaining child, a boy of eight, had, in addition to the violent abdominal pains, some fever, œdema of the limbs, and great tenderness of the muscles. There was little intestinal derangement in these cases, the mother only suffering from slight nausea in the early stage of the disease. The œdema suggested some renal derangement, but examinations of the urine were negative. After the death of the first patient in the hospital, the obscurity of the diagnosis in the three cases admitted led to a thorough investigation into the previous condition and habits of the patients, by Dr. F. C. Bressler, one of the resident physicians. He soon ascertained the incident of the raw pork, which gave him a clue to work up the remaining cases. The mother was the most seriously affected, and her symptoms were daily becoming more severe. After a patient inquiry, the diagnosis of trichinosis was made by Dr. Bressler, and concurred in by Dr. Bevan, one of the visiting surgeons. The boy eventually recovered, and was taken away by relatives, but the mother grew worse, and finally died on July 22, six weeks from the time of eating the raw pork.

The autopsy demonstrated intense colitis, with ulcerating patches extending completely

through the mucous and muscular coats of the bowel. This condition seems rather remarkable, in view of the almost total absence of purging in this case. Microscopical examination of muscular tissue demonstrated the presence of the *trichina spiralis* in considerable numbers, thus absolutely verifying the diagnosis.

Doubtless other cases have occurred here from eating infected pork, but up to this time none have been reported. It is scarcely possible that the afflicted family was the only one that ate its pork raw.

Two of the most deserving charities of this city are devoted to the relief of the sufferings of poor children during the hot weather. They are the Free Excursion Society and the Thomas Wilson Sanitarium for Sick Children. The first of these organizations owns a fine place on the Patapsco, to which excursions are made every Thursday during the summer. Children — either sick or well — and their mothers or other relatives are given a day's relief from the heat, dust, and noise of the city and the foul atmosphere of crowded houses, and enabled to spend a day of enjoyment in the woods and upon the water. Tickets are distributed to the most deserving by the police force, who are recognized among us as the best qualified and most judicious dispensers of charity. Up to the present time this summer upwards of ten thousand persons have received the advantage of these excursions. At the grounds lunch is served by a committee of the Society. Two or three physicians are always in attendance to respond, gratis, to calls for their services, and medicines are furnished whenever necessary. A temporary hospital is on the grounds, where sick children are properly taken care of.

The expenses of the Society are met by voluntary contributions of money and various articles of food, and the city authorities grant the use of one of the city ice-boats for the purpose of conveying the crowds to and from the grounds.

The other organization referred to has a somewhat different scope. The Wilson Sanitarium is intended only as a retreat for sick children accompanied by their mothers. It is beautifully situated on the Western Maryland Railroad, ten miles from the city. The tickets are distributed, free, by the dispensary physicians, and entitle the holder to passage over the railroad, food, medical attention, and medicines at the Sanitarium, where there are always three physicians in attendance, two of them being of the gentler sex. There are fourteen rooms for the accommodation of sick children and their mothers at the Sanitarium, and during the present summer these have been nearly constantly filled. The mothers are allowed to remain until the children are well, when they must give place to others. The beneficiaries are under no expense whatever during their stay. Since the middle of June nearly four thousand five hundred persons—mothers and children—have received the benefits of this noble charity.

Another fatal mistake has been caused in this city during the past week, owing to the carelessness of an apothecary. A physician, desiring to give his own child (a little girl three years old), who was suffering from malarial fever, some muriate of quinine, went personally to the drug-store in order to procure the medicine. The clerk put up the prescription, and a dose of the mixture was given to the patient. Symptoms of opium-poisoning soon developed, which proved fatal after several hours, in spite of energetic efforts to avert death. An autopsy was made, and the stomach turned over to a chemist for analysis.

The latter has not yet made his report, but there seems little doubt that the clerk carelessly substituted muriate of morphia instead of muriate of quinia, since a bottle containing the former was found in the place whence the clerk had taken the medicine, while none of the quinia salt could be found in the store. The coroner's jury committed the clerk to jail pending the chemical analysis.

Dr. George M. Sternberg, Surgeon U.S.A., who was the American delegate to the International Sanitary Conference in Rome, has returned to this city, and is again pursuing his bacteriological researches at the Johns Hopkins University. As the Conference did not finish its work, but adjourned to meet again in November next, it is probable that Dr. Sternberg will soon return to Europe under the orders of the State Department.

G. H. R.

PROCEEDINGS OF SOCIETIES.

THE AMERICAN OPHTHALMOLOGICAL SOCIETY.

THE Twenty-First Annual Session of this Society was held at the Pequot House, New London, Connecticut, July 15 and 16, 1885, the President, Dr. WILLIAM F. NORRIS, of Philadelphia, in the chair.

The first paper was entitled

Operation for Removal of Dislocated Crystalline Lens. By C. R. AGNEW, New York.

The operation was as follows. The pupil was dilated with atropine. The patient was then etherized and cocaine was applied. The eye was secured with fixation-forceps. An instrument resembling a two-pronged fork, which was termed a bident, was introduced into the vitreous chamber behind the dislocated lens, pressing it forward. The bident transfixed the eye and held the lens in position. Section was then made in the ordinary

manner and the lens removed. The eye was dressed with absorbent cotton and a black silk bandage. Antiseptic solutions were used, and a four-per-cent. solution of cocaine was applied twice a day. The eye recovered without any unpleasant symptoms.

Extraction of a Dislocated Lens by Dr. C. R. Agnew's Bident. By Dr. DAVID WEBSTER, New York.

The patient received a blow on the right eye. This was immediately followed by loss of sight. Examination showed that the lens was dislocated. No treatment was recommended at that time. Some months later pain suddenly appeared in the injured eye. The lens was found to be cataractous and incarcerated in the pupil. Cocaine was applied, but did not relieve the pain. Atropine relieved the pain. Later the lens became loose, and was found in the vitreous. The tension was normal. It was decided to remove the lens. The bident was passed back of the lens, pressing it forward; the incision in the cornea was then made, and the lens removed with a spoon. The eye was dressed with absorbent cotton, and recovered without complication. $V = \frac{20}{100}$ with 4.50.

With the bident many eyes may be saved if the lens can be brought in sight. There is no danger from injury of the ciliary body.

Dr. H. Knapp thought that in these cases there was not much difficulty in removing the lens, which could often be accomplished with the loss of very little vitreous; but the danger came in afterwards from inflammatory complications, and, where the sight was lost, he thought it better to enucleate the eye at once and thus lessen the dangers of inflammation. He considered the bident, which was exhibited, to be an ingenious instrument.

Dr. C. R. Agnew thought that the bident might also be useful in the removal of foreign bodies from the interior of the eye. He did not acquiesce in the view that enucleation was a simple operation. He regarded it as a serious mutilation.

Dr. C. H. Williams, of Boston, said that there was another alternative than those mentioned, and that was evisceration of the eye,—the removal of its contents and closure of the anterior opening with sutures. This he had performed a number of times with success.

Extraction of the Lens in its Capsule. By Dr. B. ST. JOHN ROOSA, New York.

For the past three years the doctor had been in the habit of removing the lens in its capsule, in a large proportion of cases without iridectomy. The use of cocaine has facilitated the operation. He referred particularly to the method of dislocating the lens. The section is made as usual, but larger. After puncture and counter-puncture are made, the knife is turned on its back, so that it rests on the iris. The knife is then moved up and down two or three times until the lens is seen to move; then the section is completed, and then the lens can usually be removed with no loss of vitreous. The manipulations on the cornea are made with one or two spoons. Sometimes after the operation it is rolled under, but in many cases the pupil is circular. The writer had performed the operation between thirty and forty times, and is satisfied with his success.

Dr. George C. Harlan, of Philadelphia, reported "Two Cases of Sub-conjunctival Luxation of the Lens." In the first case no operation was recommended, as vision was good. In the second case the lens was removed. The doctor thought it well, in those exceptional cases in which vision remains, that the operator should think twice before resorting to removal.

Dr. D. F. Wadsworth, of Boston, reported "A Case of Dislocation of the Lens under Tenon's Capsule." The eye had been injured two weeks before the patient came under observation. There was loss of sight, pain about the eye, and irritation of the other eye. The cornea was hazy, and there was blood in the anterior chamber. The eye was enucleated, and it was found that the lens was beneath Tenon's capsule, and that it was held in this position by inflammatory tissue.

Treatment of Purulent Conjunctivitis. By Dr. J. A. ANDREWS, New York.

The treatment is based upon the belief that the contagious element is of the micrococcus variety. He related a case in which he had secured an inoculation of the seventh generation of a pure culture of a gonococcus. This is the first case inoculated with the gonococcus. He showed an instrument which he had devised to wash out the conjunctival culde-sac. It consisted of an eye-speculum with hollow arms, through which fluid may be passed. He had found bichloride-of-mercury solution (1 to 10,000) serviceable, but apt to irritate. A six-per-cent. solution of boric acid was also found efficient. A two-per-cent. solution of carbolic acid is useful, as it inhibits the movements of the white corpuscles. Irrigation should be maintained for ten minutes, in order to remove all secretion. Nitrate-of-silver solution (two to twelve per cent.) is then used, and an antiseptic dressing is next applied. This consists of vaseline and boric acid or carbolic acid; but he laid especial stress upon the importance of maintaining irrigation of the conjunctiva by means of the instrument referred to above.

Abscess of both Frontal Sinuses. By Dr. CHARLES S. BULL, New York.

The patient had been hit on the forehead, fourteen years previously, with a piece of wood. This produced a fracture of both nasal bones and deviation of the septum. In seven

weeks the wound had closed. Ten years after the accident a swelling was noted at the upper inner angle of the right orbit, which could be made to disappear by pressure. There was comple ptosis. An incision was made into the swelling just beneath the orbital margin, and a large quantity of pus escaped (two or three ounces). The cavity was washed with a five-per-cent. solution of carbolic acid. No connection with the superior nasal meatus could be detected, but the bony septum between the two frontal sinuses was absorbed, and both sinuses were converted into large cavities. The entire ethmoid bone was an immense cavity, the bony structure being absorbed. A number of osteophytes were removed. A drainage-tube was introduced. The patient was discharged six weeks after the operation, and recovered completely. The ptosis disappeared, and the eye was restored to the normal plane.

"A Case of Melanotic Sarcoma of the Orbit" was reported by Dr. Buller, of Montreal, Canada.

Bony Tumor of Orbit. Dy Dr. B. E. FRYER, Kansas City, Missouri.

The patient, a boy, 6 years of age, came under observation April, 1885. There was swelling of left orbit, which included the whole line of the superciliary ridge. It was quite hard. Some time before, the boy had been struck by a piece of wood, but it was thought that no splinter had lodged beneath the skin. It was decided to remove the tumor. This was done, and on examination it proved to be a bony cyst, within which was a small piece of wood. This was enclosed in bone on all sides. The edges of the wound were brought together, and healing resulted without complication.

Dr. W. H. Carmalt, of New Haven, Connecticut, reported the case of a child 10 years of age, from whom he removed a small growth from the upper lid. Six weeks later the growth had returned. An exploratory operation was done, and it was found that the growth extended into the orbit, and that it was impossible to remove it entirely. It was therefore decided not to complete the operation. The child had since died. The tumor proved to be a rapidly-growing sarcoma. He thought that if in young children the tumor appears to be quickly recurrent and not easily isolated, no operative interference should be attempted.

Dr. Kipp, of Newark, thought that in many cases these tumors of the orbit are not primary, but secondary, and that the primary tumor may be in such a position as not to attract attention.

Dr. Harlan, of Philadelphia, reported several instances of inflammatory exudations in the orbit simulating tumors, and illustrating the importance of exercising great care in diagnosis.

Dr. W. S. Dennett, of New York, exhibited a series of new test-letters.

Dr. Norris, of Philadelphia, presented a new sheet of metric test-letters, devised by Dr. Oliver, of Philadelphia.

Dr. C. R. Agnew, of New York, made a brief reference to a case of occasional or simulated blindness, in which the vision suddenly returned.

Dr. Theobald described a similar case, in which there was sudden blindness. The pupil acted normally, and the ophthalmoscope revealed no disease. A favorable prognosis was given, and the patient recovered sight in a short time.

Dr. Buller, of Canada, thought that in these cases there was for the time being a functional loss of power in the nerve.

Dr. Roosa had been led to believe, from his experience, that in these cases there is a basis for the blindness in the ocular condition. There is a derangement of sight from some condition, and the patient finally imagines that she is blind.

Dr. Harlan, of Philadelphia, thought that there were two classes: one in which there is purely deception, perhaps the result of deranged mental condition, and the second, in which there is a real temporary suspension of function.

Dr. Risley, of Philadelphia, said that some of these cases might be explained by an enfeebled condition of the circulation, in which the heart was unable to force the blood against the normal intraocular tension, and the loss of vision thus results from want of nourishment of the retina.

Other cases of hysterical blindness were described by Dr. Williams, of Cincinnati, and Dr. Andrews, of New York.

Some of the Results obtained in One Thousand Cases of Refraction. By Dr. E. E. HOLT, Portland, Maine.

The writer had been in the habit of recording all the measurements connected with the prescribing of glasses. As a result he had found, in one thousand cases thus recorded, the average distance between the centres of the pupils of the human eye to be about sixty millimetres. The averages of other measurements were given, and the importance of the physician determining and designating them, and then seeing that they were carried out, was dwelt upon.

Rapidly-Progressive Myopia checked by Section of the External Rectus. By Dr. G. C. HARLAN, Philadelphia.

The case was that of a boy of 16, in whom myopia was progressing rapidly. The external rectus was divided seven years ago. The internal rectus was also exercised by the use of prisms. Since then there has been no increase of the myopia.

Three Cases of Progressive Astigmatism. By Dr. SAMUEL THEOBALD, Baltimore.

The first case was that of a young man who, with a high grade of hypermetropia, had an astigmatism of each eye, which required for correction a $+\frac{1}{20}$ C. The case was observed at intervals during twelve years, and during that time the astigmatism increased until finally a $+\frac{1}{13}$ C was needed to correct it.

The second case was one of compound myopic astigmatism in a young man, in which there occurred, along with an increase of the myopia, a growth of the astigmatism during a period of sixteen years from $\frac{1}{16}$ to $\frac{1}{8}$.

In the third case a simple myopic astigmatism in a physician, 25 years of age, requiring a $\frac{1}{24}$ C in one eye and a $\frac{1}{30}$ C in the other for its correction, changed in five years so that a $\frac{1}{11}$ C and a $\frac{1}{13}$ C, respectively, were needed.

The speaker regretted that the examinations had not all been conducted under a mydriatic, as they then would be more apt to carry conviction to the minds of those disposed to be sceptical regarding the progression of astigmatism. He did not believe that the result would have been different. Such cases are not frequent, but it is important that the fact should be recognized. As the increase of astigmatism is probably due to change in the corneal curvature, the phenomenon should be met with more frequently in the yielding myopic than in the relatively stable hypermetropic eye.

AFTERNOON SESSION.

Hypermetropic Refraction passing into Myopic Refraction. By Dr. S. D. RISLEY, Philadelphia.

The doctor had on previous occasions called attention to five cases of a similar kind, and the object of his paper to-day was simply to report six additional cases seen within the past year.

Dr. W. S. Dennett, of New York, made a few remarks on the importance of the examination of spectacles. He exhibited a series of drawings showing the effect of different kinds of lenses on straight lines.

He also exhibited an electric-light ophthalmoscope, a description of which had been printed in the *New York Medical Record.*

An arrangement for the demonstration of refraction and accommodation was exhibited by Dr. Lucien Howe, of Buffalo, New York.

This consists of two bands of thin metal bent in such a manner as to represent the outlines of a double convex lens, and passing through it two jointed rods representing the rays of light ordinarily figured as passing through such a lens and joining at its focus. The flexible bands were attached to each other above and below, so that by approaching or separating the sides they could be made to show less or greater convexity. The rods representing the rays of light were joined near the centre in such a way that, while the two halves could be placed in such a direction as to show the light as entering parallel to the axis of the lens, the other two portions could be bent to a point to show the convergence of rays at the focus. By alteration in the position of these rods, and also in the forms of the bands representing the lens, all the different variations of the laws of refraction and the changes in accommodation can be demonstrated to a class.

Dr. E. Dyer, of Newport, Rhode Island, demonstrated a perimeter which he had described at the last meeting of the Society.

Two Cases of Unilateral Temporal Hemianopia. By Dr. C. S. BULL, New York.

The first case was that of a man, aged 66, first seen in 1884. In 1849 he received an injury which rendered him unconscious. When he regained consciousness he found that he was blind in the right eye. In 1883 he noticed a general obscuration of vision in the left eye. There was no syphilis, no disease of the heart, and no indication of Bright's disease. He had never used alcohol to excess, but smoked and chewed tobacco in large amounts. There was an irregular central scotoma. The media were transparent, and the iris normal. Both optic disks were of a dirty-white color, and in both there was a deep excavation with pulsating veins, and in the left eye there was a large retinal hemorrhage. The tension was normal.

The second case occurred in a man aged 60. He had been knocked down by a horse, receiving a depressed fracture of the frontal bone above the left eye. The patient was unconscious or delirious for four weeks following the accident. When he regained consciousness, he found that the left eye was blind. Examination showed that in the left eye there was somewhat irregular temporal hemianopia. This may have resulted from fracture of the superior orbital plate, with injury to the fibres of the optic nerve going to the temporal half of the retina.

Two Cases of Penetration of the Eyeball with Scissors in the Operation of Strabismus. Read by Dr. H. DERBY, Boston.

The first case was that of a young man, on whom an operation for strabismus had been attempted. The surgeon inadvertently picked up a pair of sharp-pointed scissors. The point of the scissors suddenly penetrated the eyeball, and a portion of vitreous equal in size to a cherry-stone escaped. The operation was abandoned, and Dr. Derby was called to see the case. The eye was bandaged and the patient put to bed. Several attacks of inflammation supervened, but the patient was discharged on the forty-first day, with $V = \frac{7}{10}$.

In the second case the scissors also entered

the sclerotic, but after a somewhat tedious convalescence the wound was found closed on the twenty-first day, with vision as good as before the operation.

Dr. Knapp stated that he had done three thousand squint operations, and in three cases he had punctured the sclerotic. He, however, completed the division of the muscle, and the patients recovered as readily as from an uncomplicated operation.

Dr. Mittendorf stated that he had been present at a strabismus operation where the sclera was opened. He advised the surgeon to complete the operation. This was done, and the wound healed in four or five days. He thought that in case the accident happened, the division of the muscle should be completed.

Dr. E. Williams, of Cincinnati, reported a case in which he had punctured the eye. The patient recovered without difficulty.

Strabismus: its Correction when Excessive and in High Degrees of Amblyopia. By Dr. E. E. HOLT, Portland, Maine.

The writer had employed advancement of the weakened, attenuated muscle, in connection with tenotomy, in certain cases of squint, and after tenotomy alone had failed to correct the deviation. He also exhibited an apparatus he had devised for showing the associated and accommodative movements of the eyes and the effects of tenotomy and advancement of the muscle in correcting squint.

The Treatment of Strabismus Internus. By Dr. W. W. SEELY, Cincinnati.

He combated the idea that crossed eyes never become straight without an operation. Nothing is better established than the relation between ametropia and strabismus, and all recognize the necessity for glasses to prevent the recurrence of the squint after tenotomy. Every one knows that it is possible to correct the squint by setting aside the ametropia by means of glasses.

He said, "My early conviction that something should be left to time and glasses has long since grown into an absolute law of action, for I have become thoroughly persuaded that immediate perfection meant, later in life, insufficiency or even divergence.

"Operative procedures should not be the first consideration, but should be looked on as an adjuvant to be resorted to later on, if necessary."

He summed up as follows:

"1. That, with our present light, routine operative interference is wrong.

"2. That thoroughly to correct the deviation in young children by operative interference is extremely liable to subject them in after-life to insufficiency or external squint.

"3. That a later period of life, if anything, favors better results from operative interference."

Dr. Knapp thought advancement a dangerous operation. He had always been able to correct the deviation by two or three tenotomies and (if necessary) stitching the eye to the commissure.

Dr. Theobald, of Baltimore, endorsed Dr. Knapp's views in reference to advancement. He was surprised at the conclusions of Dr. Seely. Squint-operations in his hands had been very satisfactory. If postponed, they are likely to prove unsatisfactory on account of the amblyopia which is liable to develop.

Dr. O. F. Wadsworth had studied the subject for a long time, and had convinced himself that amblyopia from squint did not occur. The ability of the patient to use the vision which he has does seem to be lost by a continuance of the squint, but it may be recovered by practice. If the examination of vision were carefully made, he was certain that it would be found that the vision was not improved after the operation. It, however, is often difficult to get the full amount of vision which a squinting eye possesses.

Ectropion of Both Lids; Blepharoplasty by the Italian Method. By Dr. R. H. DERBY, New York.

The displacement of the lids was the result of cicatricial tissue from a severe and extensive burn of the face. The lids were loosened from their attachments, and the new lids formed from flaps raised from the arm. The arm was bound to the head by water-glass plaster, and the pedicle was not divided until union had taken place.

Dr. Hasket Derby exhibited a box of trial lenses made by Nachet, in which the following features were embodied:

1. The doubling of the prisms.
2. The distinguishing of the cylindrical lenses by coloring the positive settings black and the negative red.
3. The adaptation of the trial-frames to receive the glasses without removal from the patient's head.
4. The removal of the handles from the prisms and cylindrics.

Plastic Operations without Pedicles. By Dr. B. JOY JEFFRIES, Boston.

The object of the paper was to make one or two suggestions which the author had not yet put in practice, but which he was ready to try when opportunity offered. He suggested the use of the prepuce from the circumcision of Jewish children for operations about the eyes. He also suggested that in plastic operations the desired result might be obtained without the use of a flap by employing carbolized-oil dressings to retard healing, for it is well known that some time after a plastic operation the transplanted tissue has almost entirely disappeared.

EVENING SESSION.

Dr. Harlan, of Philadelphia, reported two cases of congenital paresis of the external rectus.

Dr. Harlan also exhibited and described Borhek's sphero-cylindrical lenses.

The Removal of a Bit of Steel from the Lens with the Electro-Magnet. By Dr. J. L. MINOR, New York.

M. S. was struck, one week before coming under observation, by a piece of steel. There was a small scar in the cornea, and vision was much reduced. There was clearly a piece of steel in the lens, which the doctor desired to remove at once. After consultation, it was thought advisable to await the development of some symptoms. The patient was, therefore, given atropine, and instructed to return if the eye gave any trouble. Some time later the eye became irritable, there was considerable ciliary injection, there was haziness, and the tension was increased. Cocaine was employed and iridectomy performed. The shank of a strabismus-hook was touched to an electro-magnet, thus making it a magnet. The extremity of the hook was then carried into the lens, and the piece of steel at once attached itself to it and was removed. Thirteen days later the eye had recovered from the operation. The lens has not yet been removed.

Malformation of the Upper Lid. By Dr. R. H. DERBY, New York.

In this case there was a fissure of the upper lid, from the angle of which a portion of skin projected in a peculiar manner.

Removal of Epithelioma of the Eyelid by Applications of Benzole and Calomel. By Dr. A. MATTHEWSON, Brooklyn.

O. D., laborer, 50 years of age, was seen October 30, 1881, with tumor on the right lower lid. This first appeared as a warty growth three years previously. Of late it had been rapidly growing, and presented a raw granulating surface. Careful examination by an expert showed it to be undoubted epithelioma. It was treated by frequent dustings of calomel, after brushing the surface with benzole. The tumor entirely disappeared until a few months ago, when a granular spot appeared at one edge of the site of the former growth. This disappeared under a renewal of the same treatment.

Lipomatous Ptosis. By Dr. H. S. SCHELL, Philadelphia.

Under this head the speaker reported four cases of ptosis from excessive accumulation of fat in the upper lids. The condition occurred in young women between the ages of eighteen and twenty-five. The deformity was symmetrical, the weight of the lid causing it to cover one-half of the cornea. The excessive fat was removed through a horizontal incision. The smallest amount taken away was thirty-five grains; the largest, seventy-one grains. The levator regained power in from one to four weeks. In one case it was necessary to repeat the operation.

Clinical Observations. By Dr. L. WEBSTER FOX, Philadelphia.

Case I.—Congenital cataract in both eyes successfully operated on in a patient 60 years of age.

H. H., a negro, aged 60, presented herself at the Germantown Hospital February 4, 1884. Congenital cataract of both eyes was found. The use of a four-grain solution of atropia produced no dilatation of the pupils; there was simply light-perception. Shortly afterwards the right lens was removed, and the wound rapidly healed. At the end of eight days the patient could see, but could not name objects without touching them. The lens of the left eye was subsequently removed. The effect of the acquisition of sight after sixty years of blindness was carefully described by the doctor. The lenses, when removed, were found to be of a spheroidal shape; the optic nerve presented an oval outline.

Case II.—Recovery of useful vision after eighteen years' blindness.

R. L., aged 37 years, was injured in the left eye when three years of age. Two years subsequently sympathetic ophthalmia developed in the right eye, resulting in qualitative perception of light only. An iridectomy was done at the Germantown Hospital in June, 1884; the media were found to be clear. When admitted to daylight, complained of erythropsia to such an extent that dark glasses were ordered. This disappeared in the course of three months. A +10 D spherical glass was ordered for distant use, and a +14 rendered near objects visible. Subsequent examination showed that better vision was obtained by a combination of spherical and cylindrical lenses.

The remaining portion treated of the history and treatment of five cases of retinitis pigmentosa by electricity (constant current).

There was marked improvement, which in one case remained nine months after discontinuance of the treatment. Five cells are usually employed, the positive pole being placed over the closed eyelid and the negative pole at the nape of the neck.

On the Pulsating Variations of Intraocular Tension as Measured by the Manometer. By LUCIEN HOWE, M.D., Buffalo, New York.

In calling attention to the variations of intraocular tension, some attention also was given to various forms of manometer, or instruments

for its measurement. The earlier forms consisted simply in a U-shaped tube of glass connected by a flexible tube to a trocar. When the trocar was introduced into the anterior chamber of the eye, the intraocular pressure would tend to force the fluid through the tube and show the degree of pressure by a rise in the opposite column of the U-shaped tube. This was imperfect, for the reason that when the aqueous humor escaped from the eye it was at once in an abnormal condition. The double manometer described by Grasser and Holzke obviated this difficulty. In this, however, there was an imperfection in the trocar, which was rather complicated and liable to get out of order. An improvement was accordingly suggested, in having a stop-cock attached to a needle of the hypodermic syringe, and this the writer found to serve the purpose much better than any other. The animal best adapted to this class of experiments is the cat, on account of the deep anterior chamber.

In the earlier experiments with the manometer it was noticed that the intraocular tension varied with the heart's action. In addition to this, the writer called attention to the fact that these variations in the pressure, as indicated by the manometer, correspond to pulsations which can be seen by the ophthalmoscope in the vessels in the interior of the animal's eye. In other words, if the same thing holds in the human subject, we must infer that when pulsation is seen in the interior of the eye there is also a variation of intraocular tension, although not enough to be detected by the touch or by an ordinary instrument. This connection between pulsation and pressure is a demonstration of the cause of venous pulse in the eye, as explained by Donders. It was also observed that after the introduction of the needle there was at first considerable pulsation, but after a short time this ceased, the eye evidently adjusting itself to the unusual condition. The experiments referred to were made in the laboratory of Prof. Zunzt, of Berlin.

Nine Successive Cases in which the Electro-Magnet was used for the Extraction of Chips of Iron from the Interior of the Eye. Reported by Dr. H. KNAPP, New York.

These cases were operated on during the past three and a half years. In two the chip of iron was located in the iris, in one for two days, causing inflammation, and in the other for seventeen years, remaining quiet until recently. Both were successfully removed without deterioration of the eye.

In the seven remaining cases the foreign body was in the vitreous, had produced cataract, and could not be seen. In three cases the attempt to extract them with the magnet failed, and the eyes had to be enucleated. In four cases the chips of iron were brought forth at the first, second, or third introduction of the tip of the magnet. In all these four cases the recovery was smooth. All four are still cataractous. In two the form, size, and tension of the globe were not changed, and the perception of light is good over the whole field. In the two others the globe is slightly smaller and softer, and the field of vision defective, corresponding to the wound made for the extraction of the foreign body. There was no irritation in any of the four eyes as long as they were under observation.

The Actual Cautery in Destructive Corneal Processes. By Dr. H. KNAPP, New York.

The doctor cited a number of cases in which its use had been of service, and considered it a valuable measure.

Dr. Howe had employed this measure in three cases, and the corneal ulcer has been somewhat lessened.

Dr. E. Williams, of Cincinnati, had for the past fifteen years been in the habit of treating phlyctenular ulcers of the cornea by the application of pure carbolic acid, and had found it to act admirably.

Dr. O. F. Wadsworth had for several years been in the habit of using carbolic acid for ulcus cornea serpens and for sluggish, painful infiltrations of the cornea. In sluggish infiltration the application is preceded by scraping, and in some cases the simple scraping has been sufficient. When the ulcus cornea serpens had been severe, he did not recall that it had entirely stopped the process. In a recent case, in which the acid was applied at the beginning of the affection, three applications checked the disease.

THURSDAY MORNING.

Pneumophthalmos, or Air in the Vitreous Humor. By Dr. W. F. MITTENDORF, New York.

The entrance of air into the interior of the eye will occur at times during an operation, —as, for instance, a cataract-extraction. In such cases the air may get into the anterior chamber, whence it can be removed with ease. It is, however, entirely different when air gets into the vitreous chamber. Fortunately, this accident is of such rare occurrence that so far no description of it has been given. The writer had seen two cases of this kind within the last two years. Both occurred in connection with injuries caused by the entrance of foreign bodies into the interior of the eye. Such accidents are usually so serious that any complication of them becomes a matter of great interest. The first case was that of a young blacksmith who was wounded by a piece of iron penetrating the sclera and lodging in the vitreous humor. The foreign body, surrounded by a clot of blood, was found at the bottom of the eye. Behind the lens and a little above it three air-bubbles were seen by means of the ophthalmoscope. These appeared to be of the

size of a small pea, the smallest about as large as a rape-seed. They closely resembled the air-bubble as seen under the microscope, their centres being bright and the outlines well defined and surrounded by a sharp black border. Their recognition was not difficult. The foreign body could not be removed with the magnet, and it was decided to allow it to remain. The eye was carefully bandaged, and the day following it was found that the air-bubbles had coalesced and were seen at the posterior pole of the lens, the patient having remained quietly on his back some time before the examination. While he was in the upright position the air began to rise slowly until it reached the upper part of the vitreous chamber. During this trip the bubble looked oval and decidedly pointed at its lower portion, resembling oil-globules as they are seen ascending in water. Forty-eight hours after the accident every trace of the air-bubbles had disappeared.

The second case reported was the result of a drilling accident. A pretty large piece of stone or iron had perforated the sclera at the lower and outer part of the eye. In the semi-transparent vitreous an air-bubble of the size of a hemp-seed could be seen distinctly.

In order to determine the exact appearance of air in the vitreous, the writer experimented upon rabbits' eyes. Four of them had air introduced into the vitreous humor by means of a hypodermic syringe, and four were subjected to the introduction of oil, also by means of the hypodermic syringe. Nearly all these experiments were successful. The difference between the air- and the oil-bubble was so marked that they could be readily diagnosticated by means of the ophthalmoscope. The latter were more highly refractive, heavier in appearance, and the contour decidedly darker than the air-bubbles, which were entirely colorless.

The conclusions reached by the author were as follows:

1. The entrance of air into the vitreous body can occur only after a part of the contents of the vitreous chamber has escaped.

2. It is favored by the entrance of a foreign body which makes a large, gaping, irregular wound of the sclera.

3. In order to allow air to enter the vitreous humor, this must either be quite fluid or its anatomical arrangement must have been disturbed by the entrance of a foreign body, or the air must have been attached to the foreign body and be thus carried with it into the eye.

4. The air in the vitreous humor appears like an air-bubble, as seen under the microscope. It is more or less round, highly refractive in the centre, and has a sharply-defined black outline.

5. Oil-globules in the vitreous present a similar appearance, but they look heavier, are not perfectly colorless, and their outlines are darker; they are also more glittering in the centre.

6. Air-bubbles will be completely absorbed within two or three days; their presence is not a source of great danger to the eye. Oil-globules last longer, but they are likewise non-irritating.

A Case of Tubercle of the Iris. By MYLES STANDISH, M.D., Boston.

The patient was a girl, 14 years of age. There was no evidence of inherited syphilis. During the past winter she suffered with intense pain in the epigastrium and ascites. The eye-trouble had existed four weeks before coming under observation; there had not been much pain or photophobia. The iris was attached by its pupillary margin to the capsule of the lens. There was a growth —two millimetres in diameter, pink in color —projecting from its surface near its ciliary border.

In the course of a month the growth had doubled its size, the conjunctiva and iris remaining perfectly clear. Other growths made their appearance, and, after consultation, the eye was removed.

The vitreous, retina, and choroid were normal; the lens was somewhat opaque; the iris was very adherent to the capsule of the lens. There were four growths: the largest was two and a half millimetres in diameter at its base, and was two millimetres in height. At the top its diameter was four millimetres: this was apparently due to the pressure of the growth against the cornea. Giant-cells and bacilli tuberculosis were found under the microscope.

Dr. Knapp had seen growths presenting exactly the same appearance, which had disappeared under the use of specific treatment with mercury, even where there was no evidence of syphilis. He had never felt warranted in making the diagnosis of tubercle in such cases, although the presence of the tubercle-bacilli in this case would seem to confirm the diagnosis.

A Case of Congenital Coloboma of the Iris, Choroid, etc. By Dr. C. J. KIPP, Newark.

The patient was a woman, 69 years of age. She was first seen four years ago. There were at that time no inflammatory symptoms, but a small triangular coloboma of the iris was found exactly in the vertical meridian; the tension was above normal. The patient had never seen with this eye, but it had never given pain. Four years later the patient was again seen, and the eye presented the signs of inflammatory glaucoma. The pain had prevented sleep for many weeks. The eye was enucleated, and healed promptly. There was also found a large ectasia of the sclerotic, and over this the choroid and retina were wanting. The ectasia extended close to

the optic papule. There was also a deep, kettle-shaped excavation of the optic nerve.

Coloboma of the Choroid on the Temporal Side. By Dr. S. D. RISLEY, Philadelphia.

A young physician consulted Dr. Risley for asthenopia. There was a considerable degree of myopia in the left eye. In the right eye vision was much diminished. The ophthalmoscope showed a large hiatus in the choroid on the temporal side, the depth of which was 3 D.; there had been no pain. The speaker thought that these cases were comparatively rare.

Dr. Mittendorf had seen several of these excavations in the outward direction. Where the coloboma was so deep, he thought that it was probably a coloboma of the optic-nerve sheath with excavation of the nerve. A difference of 4 D. would indicate a greater defect than would answer to absence of choroid and retina alone.

Serous Effusion in the Vitreous due to Malaria. By Dr. W. W. SEELY, Cincinnati.

The speaker considered the occurrence of this complication not infrequent, and he reported one case of this affection.

Gray Degeneration of the Optic Nerve, with Abnormal Patellar Reflex. By WILLIAM F. NORRIS, M.D., Philadelphia.

After an elaborate review of the literature of the subject, the speaker gave the results of his observations in cases in which the patellar reflex was increased or diminished. He described three cases of gray degeneration associated with tabes dorsalis which had come under his observation. While he did not hold that this symptom indicated beginning tabes dorsalis, yet it was a danger-signal calling for rest of the brain and cord, with attention to improvement of the general condition.

A Case of Double Optic Neuritis and Ophthalmoplegia from Lead-Poisoning complicated with Typhoid Fever. By C. F. WADSWORTH, M.D., Boston.

A boy 9 years of age had suffered from obscure febrile symptoms for several weeks, and movements of the left eye had been observed to be imperfect. When first seen by Dr. Wadsworth there was pronounced optic neuritis in both eyes. The rest of the fundus normal. Vision was much diminished. No lateral movements of left eye could be made, and movement downward was impaired; the outward movement of right eye was defective. The probable diagnosis was tumor in the region of the pons.

The movements of the eyes became still more impaired, and vision sank. The boy developed pretty distinct symptoms of typhoid fever. The spleen and liver were both enlarged. Lead was found in the urine, and the diagnosis of tumor was then abandoned. The treatment was with iodide of potassium. The general condition gradually improved; the neuritis passed into atrophy, leaving too little vision to count fingers; the movements of the eyes were completely restored, and the lead disappeared from the urine. The cause of the lead-poisoning was found to be the presence of a piece of lead-pipe in the cistern from which the drinking-water was obtained.

Olive Oil as a Menstruum for Dissolving Cocaine for Application to the Eye. By JOSEPH A. ANDREWS, M.D., New York.

In addition to the occasional benefit from the use of oil dropped into the eye in recent abrasions from burns and in other painful affections of the cornea in which atropine is indicated, cocaine may likewise be serviceable. The plan of dissolving the cocaine in oil seems to insure a longer contact of the remedy, and a smaller quantity is required to effect anæsthesia,—two qualities of especial advantage in operations on the eye.

Neither the salt of cocaine nor of atropine is soluble in olive oil; but the alkaloids of both dissolve readily in the menstruum without the addition of an acid, it being only necessary to expose the solution for a few minutes to a gentle heat in a water-bath. Castor oil is not a desirable menstruum, on account of its irritating qualities, and the oleate of cocaine, for the same reason, is still more objectionable as an application to the eye.

A Case in which Enucleation of the Eye for Glaucoma had precipitated Glaucoma in the Other Eye. By Dr. DAVID WEBSTER, New York.

The patient was a man of 54, the subject of glaucoma absolutum. He complained of periodical obscurations of vision in the good eye. V = $\frac{20}{15}$, and there was no limitation of the visual field. As he was of dissipated habits, he was advised to live properly. A week or two later he returned, stating that he had had a worse attack. There was an excavation of the nerve in the good eye detected. The glaucomatous eye was now removed. Two days later, acute glaucoma appeared. An iridectomy was performed, and he recovered in a week or two, with V = $\frac{20}{20}$, with no cupping of the disk and no limitation of the field. This was the only case he knew of in which enucleation had precipitated an attack of acute glaucoma in an eye already predisposed to it. He had, however, reported cases in which iridectomy had produced the same effect.

Quinine Amaurosis. By Dr. E. WILLIAMS, Cincinnati.

The speaker reported two cases. In the first case a man took about one ounce in the

course of four days. This produced total blindness and deafness, but in six weeks he could see as well as ever. The hearing had never completely returned, although the quinine was taken eight years ago. The field of vision was concentrically contracted in both eyes. The optic disks were found to be very white, the calibre of the arteries and veins was reduced, and the smaller capillaries could not be seen.

The second case was that of a boy of 14, who had received large doses of quinine, the exact amount not being known. He was totally blind for four days. When examined, the sight was much diminished and the atrophy of the optic disks was extreme, and there was great contraction of the field of vision.

A Means of Measurement of the Amount of Anæsthesia from Cocaine. By Dr. LUCIEN HOWE, Buffalo.

The doctor exhibited the drawing of a kymograph which he had used for this purpose. The use of the instrument was based on the fact that irritation of a sensory nerve is followed by a rise of blood-pressure. The instrument is connected with an artery, and the conjunctiva is irritated. Cocaine may then be applied and the results on the blood-pressure compared.

Dr. Harlan, of Philadelphia, presented a modified ophthalmoscope, which had been devised by Dr. Jackson, of Philadelphia. In it the lenses moved vertically instead of circularly.

Dr. Dennett, of New York, exhibited an arrangement for using Stokes's lens for measuring astigmatism, and to avoid the inconvenience of constantly removing the frame from the patient's nose. The lens was mounted on a stand, and could thus be placed in front of the patient.

The Society then went into executive session.

The officers for the following year are as follows:

President.—Dr. William F. Norris, Philadelphia.

Vice-President.—Dr. Hasket Derby, Boston.

Secretary and Treasurer.—Dr. O. F. Wadsworth, Boston.

Corresponding Secretary.—Dr. J. S. Prout, Brooklyn.

New members were elected as follows: Dr. Charles A. Oliver, Philadelphia; Dr. Edward Jackson, Philadelphia; Dr. B. Alexander Randall, Philadelphia; Dr. D. Pope Walker, New York; Dr. William O. Moore, New York; Dr. Frank G. Capron, Providence; Dr. S. M. Burnett, Washington; Dr. William T. Bacon, Hartford.

The next meeting will be held at New London, the third Wednesday in July, 1886.

W. H. M.

NEW YORK PATHOLOGICAL SOCIETY.

A STATED meeting was held June 10, 1885, the President, JOHN A. WYETH, M.D., in the chair.

EXSECTION OF THE KNEE.

Dr. J. H. RIPLEY presented an Italian, 28 years of age, who had been well until four years before his admission to Charity Hospital, September 14, 1882. He had suffered for a year from a hot and painful left knee, which was considered rheumatism. This attack ceased of itself; but, four years later, he slipped on a banana-peel, fell, and injured the left knee, which immediately swelled to twice its natural size, became very hot and painful, and he was conveyed to Charity Hospital. Here he was treated in the medical ward for three months for rheumatism, when he was transferred to the surgical ward, where extension was employed for some time, together with local and general treatment. Extension being discontinued, a plaster-of-Paris splint was applied. Finally, Dr. Ripley decided to exsect the joint, although crepitation could not be heard and the surgeons present were in doubt whether the operation should be done. The bones were found to be extensively diseased, and to have removed all the diseased portion would have necessitated the taking away of a portion of the shaft of both bones. The patient, however, made a good recovery and had good use of the limb.

The case was interesting from the fact that the patient had suffered for nearly three years with an inflamed joint, there being no suppuration and no crepitus. The absence of crepitus was found to have been due to the fact that contiguous portions of the opposing bones were not roughened. It was further interesting as showing to what extent disease of the bone could go and end in repair; also in the fact that it illustrated the great difficulty of extracting the binding-wires. Dr. Ripley had had a similar case in a girl about ten years ago, but there recovery was more protracted, because the bones had not been put up immovably.

The PRESIDENT said the case also illustrated the great advantage of excision over the old method of treatment by amputation. The books told us that about twenty-five per cent. of patients died after amputation, whereas he had not, during an observation of six or seven years of the treatment by excision, seen a single case of death. As to the use of wires, he thought they were altogether unnecessary; but, if they were employed, they might be allowed to remain, for their presence did no harm.

ULCERATIVE ENDOCARDITIS.

Dr. RICHARD VAN SANTVOORD presented the heart of a man, aged 46 years, whose

father had died suddenly, of an unknown cause, and whose mother had died suddenly of heart-disease. The patient had had measles, scarlatina, smallpox, primary chancre, and had been a hard drinker. When admitted he was suffering from rheumatism. The feet were swollen at night. Irregular exacerbations of temperature and rheumatic attacks continued for some weeks, and he died of exhaustion. There had been failure of memory. The autopsy showed pachymeningitis hæmorrhagica, with general thickening and opacity of the membranes, and the viscera showed some of the signs of chronic alcoholismus. The chief interest centred in the heart. There were remains of old pericarditis. The ventricles were somewhat dilated. The gross appearance pointed to fatty degeneration. On two leaflets of the aortic valve were masses of vegetation, each surrounding an ulcer perforating the valve. A third leaflet was atheromatous, and at one spot there was roughening of the inner surface of the heart. On one of the leaflets of the mitral valve was a small mass of vegetation. There was advanced atheroma of the large vessels. The sphygmographic tracing was that said to be characteristic of aortic regurgitation with atheromatous arteries. A correct diagnosis had been hardly possible in the patient's condition. Aortic and mitral regurgitant murmurs had been recognized. While a systolic murmur at the apex was supposed to indicate mitral regurgitation, he thought it was a recognized fact that this murmur was frequently heard in aortic regurgitation, or it might be due to meeting of conflicting blood-currents in overdistention.

CONGENITAL MALFORMATIONS.

Dr. A. JACOBI presented a boy, aged 7, who showed the following malformations: on the left hand were but three fingers, the index and little fingers, with their corresponding metacarpal bones, being absent. The left ulna was fourteen centimetres, and the right one sixteen and three-quarter centimetres long. The left elbow-joint was imperfectly formed, interfering with perfect supination. The lower extremities presented symmetrical formations except in the following respects: the left foot was smaller and about half an inch shorter than the right; the right thigh was about four centimetres longer than the left, and the movements of the right foot were much freer than those of the left; the patella was absent on the left side, and was imperfectly formed on the right side. The length of the left leg was twenty-seven centimetres, and of the right twenty-eight centimetres; on the left foot the second and third toes were slightly raised. The face and the head were nearly symmetrical. The chest was slightly rachitic. The child was able to walk, and when in the erect posture the thighs presented forward and slightly outward.

His sister, 3 years old, was also presented, and showed congenital deformities of the right leg and foot. The tibia presented an anterior curve, and at about the junction of the lower with the middle third was a longitudinal scar half an inch in length. The foot was strongly everted. The fibula was absent. There were but two toes,—the big toe and another which seemed to be the union of two. The latter articulated with two metacarpal bones. It was impossible to bring the leg into a straight line with the thigh, either because of the action of the posterior muscles of the thigh or because of some abnormality in the formation of the knee-joint. When extended as far as possible, the leg turned outward. The right leg was shorter than the left by one and a half inches, being eleven inches long. There seemed to be no anterior tibial artery on the right leg. The right foot was shorter and smaller than the left. As to the bones entering into the formation of the tarsus, it was impossible to state with certainty, but the cuneiform bones seemed to be absent. The right patella seemed to be smaller than the left, and was placed external to its normal position.

Dr. JACOBI had seen several cases of congenital absence of a long bone, and he believed it was the rule, as in this case, to find a scar, the result probably of an injury before the complete formation of the skin during intra-uterine life.

VOLVULUS OF THE SIGMOID FLEXURE.

Dr. FRANK FERGUSON presented a dried specimen illustrating volvulus of the sigmoid flexure, that portion of the gut being largely distended and discolored from hemorrhage into its substance. The gut had made a complete turn upon itself, preventing the passage of the contents of the bowel. The remainder of the colon was also largely distended. The patient had often had attacks like the one which proved fatal, which after a time disappeared. The last attack commenced with a chill; soon nausea and vomiting with severe abdominal pain developed, resulting in death about the fourth day, and a few hours after admission to the hospital.

Dr. WALDSTEIN had frequently noticed at autopsies in aged fat subjects great distention of the colon, with almost complete turning of some section, but not to the full extent of causing obstruction.

DERMOID CYST NEAR THE COCCYX.

The PRESIDENT presented a tuft of hairs about the size of a small camel's-hair pencil, which he had removed from a position just posterior and outside from the coccyx, in a man 22 years of age. The patient, eighteen months before, had had a boil, which had burst and left a fistulous tract near the anus,

and this fistulous tract communicated with an abscess-cavity, which Dr. Wyeth opened. His attention was then directed to a pimple looking like a comedo, into which he inserted the probe, and found that a canal led to a small cavity containing the tuft of hairs presented. It was doubtless a dermoid cyst, and he believed was unique in this situation.

Dr. FERGUSON mentioned two cases of congenital cyst over the sacrum, containing ciliated epithelium and cholesterin. He was unable to explain their development in this locality.

Dr. JACOBI suggested that Dr. Ferguson's cases may have sprung from the remains of an early spina bifida.

REVIEWS AND BOOK NOTICES.

LIFE OF FRANK BUCKLAND. By his Brother-in-Law, GEORGE C. BOMPAS. With a Portrait. Philadelphia, J. B. Lippincott Co. Cloth, 8vo, p. 433.

This work is largely autobiographical, since it is made up principally of extracts taken without change from the diary of the eminent naturalist himself. Earnestness, simplicity, cheerfulness of disposition, devotion to duty, and an unaffected desire to be useful to others are everywhere evident in this Life.

Upon commencing the study of his profession at the age of twenty, he makes the following entry in his note-book: "My object in studying medicine (and may God prosper it!) is not to gain a name, money, and high practice, but to do good to my fellow-creatures and assist them in the hour of need. My object in life is to be a high-priest of nature and a great benefactor of mankind." This was the key-note of his life.

Finding the salmon-fisheries of England nearly ruined by the obstructions and pollutions of rivers, he subsequently devoted all his time to the study of fishes, and to the means of increasing this important source of food-supply. He was successful in having laws passed for the protection of the salmon, and he was highly gratified by his appointment as one of the government inspectors, a position which he held until his death in 1880. He was an ardent student of the art of pisciculture, and it was his devotion to this pursuit, requiring frequent wading in ice-cold water while collecting salmon-eggs in the winter, which finally caused hemorrhages, followed by rapid failure of health and untimely death. He organized an Acclimatization Society in England, the object of which was to find out new kinds of food and to multiply old ones. His experiences with tiger steak, hippopotamus pie, rhinoceros stew, lion roasts, and kangaroo hams are recorded in graphic terms. Horse-meat he pronounced "not good," but field-mice properly roasted were highly commended. He did not seem to think that his knowledge of an animal was complete until he had cooked and eaten it.

Dr. Buckland rendered a service to medical science in searching with characteristic energy for and discovering the casket of John Hunter at St. Martin's Church. His quickness of observation appears in many ways. He went to see a magnetic exhibition at Cremorne Gardens, and pronounced it a great humbug. He said, "The people go determined to believe what they see."

His pursuit of knowledge more than once nearly cost him his life. In examining a rat which had been struck by a cobra, he gently scraped the punctures made by the fangs with his finger-nail; as a result, he was in a few moments profoundly affected by absorption of the poison, and his life was only saved by liberal use of ammonia and alcohol. Indeed, it is surprising that he had not suffered long before from snake-bite, as he usually had his pockets full when at school, where his escaped adders often led to an uproar. His fondness for animal pets made him convert his house in Albany Street almost into a menagerie, and often got him into trouble with his neighbors.

This is the record of the busy life of one who served his generation well, and, as such, it teaches a useful lesson. An enthusiastic and sympathetic student of nature, in which he gladly recognized the many evidences of design, he frequently bore testimony, both in his lectures and in his writings, to the harmony existing between the truths of science and revealed religion.

A MANUAL OF THE MEDICAL BOTANY OF NORTH AMERICA. By LAURENCE JOHNSON, A.M., M.D., Lecturer on Medical Botany, Medical Department of the University of the City of New York, etc. New York, William Wood & Co., 1884. Wood's Library.

This admirable treatise is devoted to the consideration of our indigenous medicinal flora. It has been carefully prepared, and is abundantly illustrated by numerous cuts and nine full-page chromo-lithographic plates. The author has displayed judgment and skill in compiling this manual, which is full of useful knowledge.

He does not have as high an opinion of Rhamnus Purshiana (or Cascara sagrada) as a laxative as many practitioners have, and he justly advises caution in the use of gelsemium; but he points out many plants of which the properties deserve to be better known than they are. He speaks of drug preparations ordered to be kept in the shops as "official" preparations: surely the older term "officinal" is more correct, and is also official,—*i.e.*, used in the United States Pharmacopœia.

The manual has a good introductory sec-

tion, devoted to an explanation of the general principles of vegetable growth and reproduction, and a glossary of botanical terms.

GLEANINGS FROM EXCHANGES.

THE BLOOD IN SCURVY.—Seven cases of uncomplicated scurvy, three of which proved fatal, were last summer under the care of F. Stazevich in the military hospital at Moscow. The blood examined by Lavdovski's osmic acid solution (one per cent.) showed irregular red corpuscles of dissimilar magnitude, also more or less atrophied corpuscles adhering together. After recovery this irregularity disappeared. Two cases died of intestinal hemorrhage, one of hemorrhagic pleuritis. The blood of these was found at the autopsy to be dark and fluid. In the cardiac cavities and large vessels there were either no coagula or they were of a light color and easily torn. In two cases extravasation was found in the pleura, the surface of the heart, and the aortic valves. The spleen was enlarged, light-colored, and easily broken down; the liver enlarged; the cortex of the kidney increased in thickness. The intestinal mucous membrane was soft, swollen, and contained extravasated blood; the solitary glands were enlarged in only one case, and there was likewise ulceration of the colon in only one case; the peritoneal glands were invariably enlarged, and the brain was very anæmic. Under the microscope some of the preparations of the muscles of the buttock showed small extravasations of blood between the fasciculi; the liver-cells were enlarged and cloudy, also the epithelium of the urinary passages; the alveoli of the peritoneal glands were much enlarged, and filled with round cells of the size of white blood-corpuscles. The mucous membrane of the small intestine could scarcely be recognized under the microscope, and the epithelium could not be seen at all. The commencements of the lymphatics were filled with finely granular detritus; the vessels of the mucosa were much distended, and surrounded by extravasations of blood. In places the mucous membrane was detached from the muscular coat, which had a cloudy appearance.—*Lancet.*

REMARKABLE CASE OF DOUBLE UTERUS.—Mr. Lawson Tait, at the meeting of the British Gynæcological Society, May 13, read the notes of a case of double uterus, in which there was pregnancy in the left half, with hematometra in the right. The patient, aged 39, had had twelve children. She came to the hospital three weeks after her last confinement. On examination, a large cystic tumor was found to occupy the abdomen. On handling the tumor, it became tense, in exactly the same way that a pregnant uterus did during rhythmic contractions. On examination, a cervix was met with on the right side of the vagina, but no aperture in it could be discovered. Higher up the vagina, a cervix and os uteri could also be made out, and bimanual examination made it clear that the second organ was that from which the child had passed, and that the tumor and the first cervix together constituted the right half of a double uterus. The nipple-shaped first cervix was perforated, and a large quantity of bloody serum and clot escaped. The cavity was finally washed out with warm water. When the patient left the hospital—on the fourteenth day—the supplementary uterus had contracted to the size of a cricket-ball. The cervix in the vagina had almost entirely disappeared.—*Brit. Med. Jour.*

OPIUM-POISONING AND NITRITE OF AMYL.—Dr. W. L. Johnson, of Giddings, Texas, reports (*Texas Courier-Record of Medicine*, May, 1884) the case of a man who, it was said, had taken two ounces of laudanum three hours before coming under treatment. He was comatose, face and skin cyanotic, extremities cold, and perspiring freely. After two hours' treatment with belladonna and usual remedies, his condition seemed very grave. At this point nitrite of amyl was administered by inhalation for seventeen seconds, when the patient revived and became conscious, the surface of the body became crimson, pulse was restored to the wrist, and, in short, he was entirely and permanently relieved.

[The known tendency to cerebral congestion in opium-poisoning would, as a rule, forbid the use of nitrite of amyl. In this case, however, five hours had elapsed since the laudanum had been taken, and belladonna had been administered before the amyl nitrite was given. The paralyzing action of the amyl upon the pneumogastric and the vaso-motor nerves, and its depressing effect upon the heart, would render it an unsafe agent to administer in narcotic poisoning. Possibly its good effect in this case is to be attributed to the fact that the dose of the opium had ceased to be operative.]

TREATMENT OF OZÆNA.—Regarding ozæna as a chronic inflammation attended by atrophy of the nasal mucous membrane, the alteration of the secretions favoring the development of micro-organisms and decomposition, Dr. W. Roth postulates the following indications for treatment: 1. Remove accumulations; 2. Restore the mucous membrane to its normal condition; 3. Remove the cause of the bad odor; and, 4. Relieve attending dyscrasia. He employs a greased tampon of iodoform (ten per cent.) cotton charpie at night, followed in the morning by insufflation of thymol, carbolic acid, chlorate of potassium, alum, or tannin, and appropriate general treatment, with attention to hygiene.—*New Orleans Med. and Surg. Journal; Deutsche Med. Zeitung.*

MISCELLANY.

ONE of the most recent cases of malpractice has just been decided in a New York City Court, and presents some curious features. The action was brought for damages caused by a physician treating a child for three weeks for tubercular meningitis, when the real disease was chorea, or St. Vitus's dance, and by this mistake suffering was caused and the original disease aggravated.

The testimony was very conflicting, but a verdict against the attending physician was rendered, and the Appellate Court, in affirming the judgment, said, in part, "It was in evidence, moreover (though that is one of the questions in conflict), that Dr. O'Rourke, when called in, declared that the child should have out-door exercise and nourishing food, and that in six months she would be able to go back to school, which, if true, was to be taken in connection with the fact that what he prescribed was bromide, to allay the twitching and spasms. It may, therefore, have been that the only disease that she had from the beginning was St. Vitus's dance, and not meningitis in any form, and that the three weeks' daily attendance of the defendant and the thirty to forty dollars expended by the father for medicines during that time was thrown away; and, if this was the case, that it was an inexcusable want of ordinary medical knowledge in the defendant to continue for three weeks treating the child for a disease that was such a serious one, in respect to which—though the defendant, Dr. O'Rourke, declared it curable—Dr. Allen said that he had never known an instance in which a cure had been effected."

The Appellate Court, although regarding the case as not entirely clear, on the testimony decided not to interfere with the original verdict against the physician.

JULY WEATHER.—For the greater part of July a thermal undulation of unusual intensity prevailed in Philadelphia and in other of our Eastern cities. Quoting the local Signal Service report, the highest barometer-reading was on the 23d, 30.18, and the lowest on the 14th, 29.71. The heat was most intense on the 18th, when the thermometer indicated 97° F. at the Signal Station, but 103° in the shade on the street. The lowest record was 56°, on the 1st of the month, before the undulation which appeared on the 5th and lasted until the 27th.

The greatest range of temperature was on the 17th, when the thermometer ran up twenty-four degrees; the least was on the 27th, when it varied only eleven degrees. There were eleven clear days, and the other twenty were noted as fair, although five thunder-storms were recorded. The total rainfall was 2.39 inches.

The mean temperature of the month was almost the same as 1877, and slightly above 1882, but a degree below 1876, the famous Centennial year, when Philadelphia seemed to outdo herself in order to give the world a warm welcome.

THE CREMATION SOCIETIES of the country seem to be increasing in number, and some of those which are open have their facilities pretty well taxed. The Crematory at Lancaster, Pennsylvania, is in use very frequently, and there are a large number of bodies lying in vaults awaiting the completion of the one near New York.

A society has just been formed at Worcester, Massachusetts, and a bill authorizing the formation of corporations for the purpose of disposing of the dead in this way has passed the Legislature of that State.

The recent decision in England that cremation was not illegal has had the effect of creating a number of societies, and one cremation at least has taken place. It certainly appears to be true that this practice is rapidly on the increase, both here and abroad.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U.S. ARMY FROM JULY 19, 1885, TO AUGUST 1, 1885.

MAJOR JOSEPH H. BILL, SURGEON U.S.A.—Died at Yonkers, New York, July 21, 1885.

LIEUTENANT-COLONEL CHARLES MCDOUGALL, U.S.A. (retired).—Died at Fairfield, Virginia, July 25, 1885.

CAPTAIN CALVIN DE WITT, ASSISTANT-SURGEON.—Promoted to Major and Surgeon, *vice* Bill, deceased, to take effect from July 21, 1885.

FRANCIS J. IVES.—Appointed Assistant-Surgeon, with rank of First-Lieutenant, to rank as such from July 25, 1885.

CAPTAIN A. C. GIRARD, ASSISTANT-SURGEON.—From Department of the East to Department of the Columbia.

CAPTAIN R. G. EBERT, ASSISTANT-SURGEON.—From Department of the Columbia to Department of the East. S. O. 170, A. G. O., July 27, 1885.

CAPTAIN F. W. ELBREY, ASSISTANT-SURGEON.—Sick-leave of absence further extended four months, on surgeon's certificate of disability. S. O. 162, A. G. O., July 17, 1885.

CAPTAIN L. S. TESSON, ASSISTANT-SURGEON.—Ordered from Fort Stockton, Texas, to Fort Davis, Texas.

CAPTAIN W. F. CARTER, ASSISTANT-SURGEON.—Ordered for duty as post-surgeon, Fort Stockton, Texas. S. O. 90, Department of Texas, July 27, 1885.

CAPTAIN A. H. APPEL, ASSISTANT-SURGEON.—Ordered for duty with U.S. troops forming portion of guard of honor over remains of Ex-President General Grant, at Mount McGregor, New York. S. O. 36, Division of the Atlantic, July 29, 1885.

CAPTAIN WILLIAM C. GORGAS, ASSISTANT-SURGEON.—Granted leave of absence for two months, to take effect about August 10, 1885. S. O. 169, A. G. O., July 25, 1885.

CAPTAIN NORTON STRONG, ASSISTANT-SURGEON.—Ordered for temporary field-duty with battalion Eighth Cavalry, at Hillsboro, New Mexico. S. O. 34, Headquarters District of New Mexico, June 27, 1885.

FIRST-LIEUTENANT EDWARD EVERTS, ASSISTANT-SURGEON.—Ordered for duty as post-surgeon, Benicia Barracks, California.

CAPTAIN C. K. WINNE, ASSISTANT-SURGEON.—Ordered for duty at Benicia Arsenal, California. Paragraph 3, S. O. 70, Department of California, July 15, 1885. (Modified paragraph 2, S. O. 68, c. s., Department of California.)